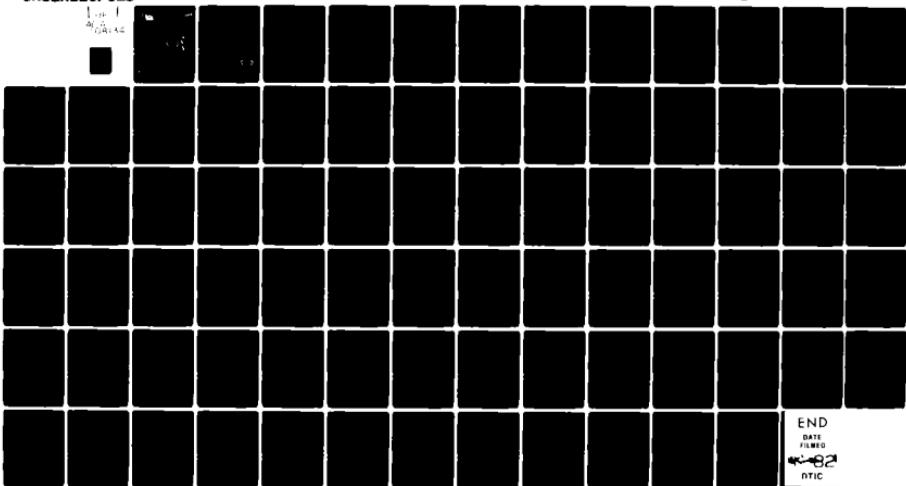


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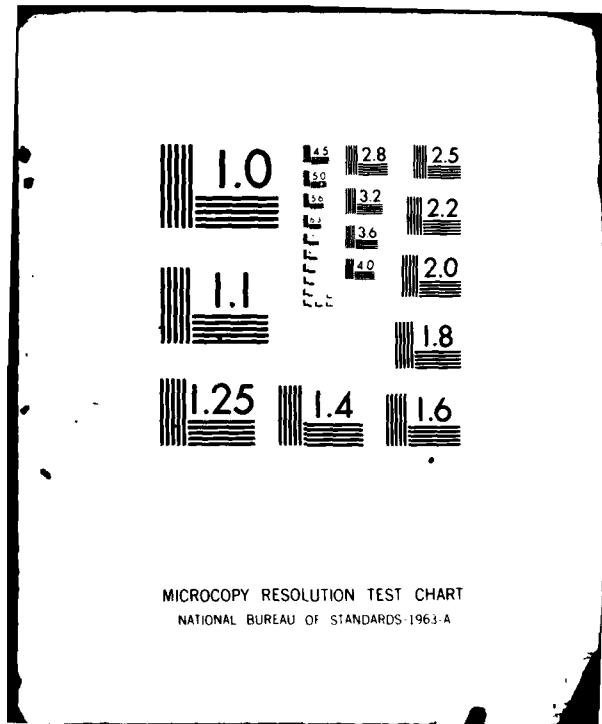


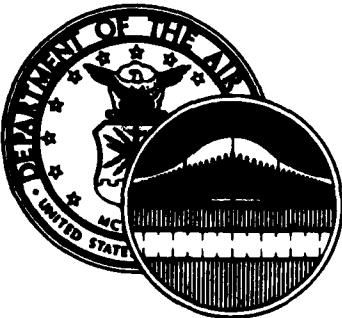
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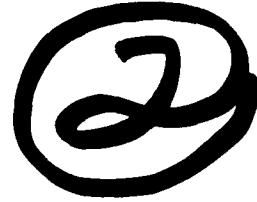
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# OCCUPATIONAL SURVEY REPORT

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CABLE SPLICING INSTALLATION AND  
MAINTENANCE CAREER LADDER

AFSC 361X1

AFPT 90-361-429

JULY 1981

FILE COPY

OCCUPATIONAL ANALYSIS PROGRAM  
USAF OCCUPATIONAL MEASUREMENT CENTER  
AIR TRAINING COMMAND  
RANDOLPH AFB, TEXAS 78150

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## PREFACE

This report represents the results of a detailed Air Force Occupational Survey of the Cable Splicing Installation and Maintenance (361X1) career ladder. The report was prepared in response to a request by personnel at the Technical Training Center, Sheppard AFB, Texas. This request was initiated to assess the impact on training requirements of the recent merger of all Cable Splicer and Maintenance personnel into one AFSC. Authority for conducting occupational surveys is contained in AFR 35-2. Computer outputs from which this report was produced are available for use by operating and training officials.

The survey instrument was developed by Mr. James L. Slovak, Inventory Development Specialist. Second Lieutenant Beverly C. Turman, Occupational Survey Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78150.

The Air Force Occupational Analysis Program has been in existence since 1956 when initial research was undertaken by the Air Force Human Resources Laboratory to develop the methodology for conducting occupational surveys. In 1967, an operational survey program was established within the Air Training Command and surveys were produced annually on 12 enlisted specialties. In 1972, the program was expanded to conduct occupational surveys covering 51 career fields annually. Finally, in 1976, the program was again expanded to also include surveys of officer utilization fields, to support interservice or joint service occupational analysis, and to permit special management applications projects.

Copies of this report are available to air staff sections, major commands, and other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78150.

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## SUMMARY OF RESULTS

1. Survey Coverage: The Cable Splicing Installation and Maintenance career ladder job inventory was administered worldwide during the period September 1980 through February 1981. Survey results were based on the responses of 596 respondents, representing 66 percent of the assigned personnel.
2. Career Ladder Structure: Nineteen job groups covering Base Cable, Electronics Installation (EI), and Hardened Intersite Cable Systems were identified. The 361X1 AFSC is fairly homogeneous in terms of the jobs which are performed by the Base Cable and EI personnel. Both groups performed many common tasks and spent similar amounts of time on a large number of functions. The job of incumbents working on Hardened Intersite Cable Systems (HICS), however, is somewhat different due to the requirements for some specialized types of equipment.
3. Career Ladder Progression: Due to the highly technical nature of the specialty, members of all skill levels are required to perform many tasks. As experience increases, however, incumbents are responsible for a wider variety of increasingly difficult tasks. As a result, while the job of the 3- and 5-skill level respondents is primarily technical in nature, the major emphasis for individuals holding a 7-skill level is basically supervisory.
4. CONUS and Overseas Comparisons: While the jobs of incumbents in both CONUS and overseas locations were very similar, greater percentages of overseas respondents reported performing tasks that were related to the installation and maintenance of telephone cable. In addition, only 361X1 personnel within the CONUS are assigned to work in Hardened Intersite Cable Systems (HICS) duty areas.
5. AFR 39-1 Specialty Descriptions: Overall, the AFR 39-1 specialty descriptions provided very accurate overviews of the 361X1 AFSC. Survey data indicated, however, that only small percentages of 5-skill level respondents reported using pressurization computers in order to locate leaks in pressurized cable systems or completing maintenance data collection forms.
6. Training: Both the STS, dated April 1978, and the current Plan of Instruction (POI) for course J3ABR36131-002 were generally consistent with survey data although there were some items that may warrant review by appropriate career ladder personnel.
7. Implications: The merger of two Cable Splicing specialties into one career field has had little impact on the jobs being performed but the consolidation has resulted in the cross flow of personnel. This creates problems in OJT by requiring more extensive orientation training. In spite of this, the majority of individuals in the specialty have high job satisfaction and feel their talents and training are well used by the Air Force.

OCCUPATIONAL SURVEY REPORT  
CABLE SPLICING INSTALLATION AND MAINTENANCE CAREER LADDER  
(AFSC 361X1)

INTRODUCTION

This is a report of an occupational survey of the Cable Splicing Installation and Maintenance career ladder (AFSC 361X1) completed by the Occupational Analysis Branch, USAF Occupational Measurement Center in June 1981. The survey was requested by the Sheppard Technical Training Center (STTC) in order to determine what impact the recent merger of all Cable Splicer/ Maintenance personnel will have on training requirements.

Background

Historically, this AFSC has experienced a number of changes. The Cable Splicing Installation and Maintenance Career Ladder had its beginning in July 1954 as the 361X1 Cable Splicing specialty. In March 1965, the career ladder was divided into two separate AFSCs. The 361X3 and 361X4 classifications were created, with the former becoming the Missile Systems Cable Splicing specialty and the latter retaining the original title as the Cable Splicing specialty. In April 1977, the 361X3 and 361X4 AFSCs were redesignated as the 361X1 and 361X2 career ladders, respectively. Finally, both specialties were merged once more as the 361X1 AFSC and given its present title in April 1978.

The basic job of 361X1 personnel, as described by AFR 39-1, is to perform various activities related to the installation, maintenance, and repair of splice cases, underground and aerial cables, communications-electronics meteorological (CEM) cables, and hardened missile cable systems. This generally includes monitoring, analyzing, and troubleshooting CEM cable and hardened missile cable systems, the maintenance of plant-in-place and maintenance/inspection cable records, and the locating, repairing and replacing of faulty splice cases. Career ladder members may receive formal training in the basic Cable Splicing Installation and Maintenance Specialist eleven week course at the Sheppard Technical Training Center.

Objectives

This survey was requested by the Sheppard Technical Training Center in order to assess the effects of the recent merger of the 361X1 and the 361X2 career ladders. Other major topics that are discussed in this report include: (1) the development and administration of the survey instrument; (2) the job structure within the career ladder; (3) a comparison of career field responsibilities to AFR 39-1 Specialty Descriptions; and (4) an analysis of skill level groups.

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## SURVEY METHODOLOGY

### Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-361-429. As a starting point, tasks from the previous inventory were reviewed, revised, and updated through detailed research of current career ladder publications and directives. This new tentative task list was then reviewed and validated by course personnel at STTC and a number of subject matter specialists at F. E. Warren AFB. The resulting inventory contained 410 tasks grouped under 13 duty headings. Also included in the inventory was an extensive background section that asked for such information as:

- (A) Job Satisfaction
- (B) Level of command at which duties are performed
- (C) Job Title
- (D) Duty Area
- (E) AFSC previously held prior to merging
- (F) Splice cases installed or repaired
- (G) Equipment used

### Survey Administration

During the period September 1980 through February 1981, consolidated base personnel offices in operational units worldwide administered the job inventory to incumbents holding the 361X1 DAFSC. These personnel were selected from a computer generated mailing list which was obtained from personnel data tapes maintained by the Air Force Human Resources Laboratory (AFHRL).

Each respondent who completed a job inventory first completed an identification and biographical information section and then checked all tasks which were performed in his or her present job. Those tasks that were checked were then rated on a nine-point scale showing the relative amount of time spent on that task as compared to all other tasks checked. The ratings ranged from one (very small amount of time spent) to nine (very large amount of time spent, with a rating of five representing an average amount of time spent in performing a task).

To determine the relative amount of time spent on each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of the time spent on the job. These ratings are totaled and each task rating is then divided by the total number of task responses. The resulting quotient is then multiplied by 100. This procedure provides a basis for comparing all tasks in terms of both percent members performing and relative percent time spent.

### Data Processing Analysis

Once job inventories are returned from the field, they are prepared so that task responses and background information can be optically scanned. Other biographical information (such as name, base, AUTOVON extension) are keypunched onto disks and entered directly into a UNIVAC 1108 computer. Once both sets of data are entered into the computer, the tasks, background, and biographical information are merged to form a complete case record for each respondent. Computer generated programs using Comprehensive Occupational Data Analysis Programs (CODAP) techniques are then applied to the data.

CODAP produces job descriptions for respondents based on their responses to specific inventory tasks. Computer generated job descriptions are available for DAFSC, TAFMS, and MAJCOM groups, and include such information as percent members performing each task, the average percent time spent performing each task, the percent members using various pieces of equipment, and the cumulative average percent time spent by all members on each task in the inventory.

### Task Factor Administration

In addition to completing the job inventory, selected senior 361X1 incumbents were also asked to complete a second booklet for either training emphasis or task difficulty. Information from these booklets was processed separately from the job inventories, and the information was then used in a number of different analyses which will be discussed in greater detail within this report.

Task Difficulty. The experienced NCOs who completed the task difficulty booklets rated all of the tasks on a nine-point scale from extremely low to extremely high difficulty, with difficulty being defined as the length of time that it takes for the average incumbent to learn to do the task. Ratings were then adjusted so that tasks of average difficulty have a rating of 5.00.

Task difficulty data was independently collected from 39 incumbents stationed worldwide. The interrater reliability (as assessed through components of variance of standard group means) was .95, which indicated very high agreement among the raters. The resulting data is a rank ordering of tasks based on the relative degree of difficulty assigned to each task within the inventory.

Job Difficulty Index (JDI). Once a task difficulty index is computed for each task item, it is then possible to compute a Job Difficulty Index (JDI) for all of the groups identified in the survey analysis. This provides a relative measure of the job difficulty for each functional group. The number of tasks performed and the average task difficulty per unit time spent (ATDPUTS) are used as the major variables to compute the JDI. The index ranges from one for very easy jobs to 25 for very difficult jobs. The indices are adjusted so that the average job difficulty index is 13.00. Consequently, the more time a group spends on difficult tasks, and the greater the number of tasks performed, the higher will be the job difficulty index.

Training Emphasis. A group of senior NCO's receiving training emphasis booklets were asked to rate all of the tasks on a ten-point scale which ranged from no training required to extremely heavy training required. Training emphasis yields a rating of tasks which indicates where the emphasis should be placed on structured training for first-term personnel. Structured training is defined as training provided at resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. The training emphasis data were collected from 58 incumbents (see Table 4 for command representation of raters). The interrater reliability (as assessed through the components of variance of standard group means) for these raters was .97, which indicated a very high degree of agreement among the raters as to which tasks required some form of structured training and which did not. Tasks which were rated highest in training emphasis had ratings of 5.3 and above, while the average rating was 3.4. Those tasks with a training emphasis rating of 1.5 and below could be considered to require very little emphasis in training.

When used in conjunction with other factors, such as percent members performing, the training emphasis ratings can provide an insight into training requirements. This may help validate the lengthening or shortening of specific units of instruction in various training programs.

#### Survey Sample

Incumbents were selected to participate in this survey so as to insure an accurate representation across all MAJCOM and paygrade groups. Tables 1 and 2 list the distribution of assigned and sampled personnel by major command and paygrade groups, respectively. Table 3 reflects the distribution of the survey sample in terms of months Total Active Federal Military Service (TAFMS). As demonstrated by these tables, the overall sample was representative of the career ladder population as a whole.

TABLE 1  
COMMAND REPRESENTATION OF SURVEY SAMPLE

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
AFCC	92	88
ATC	3	4
OTHER	5	8
TOTAL	100	100

TOTAL ASSIGNED\* 898  
 TOTAL ELIGIBLE FOR SURVEY\*\* 768  
 USEABLE SURVEYS RETURNED 596  
 RETURN RATE 78%

\*Authorized strength as of October 1980

\*\*Excludes those in PCS status, hospital or with less than 6 weeks on the job

TABLE 2  
PAYGRADE REPRESENTATION OF SURVEY SAMPLE

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
AIRMAN	36	34
E-4	21	21
E-5	25	26
E-6	13	14
E-7	5	5
TOTAL	100	100

TABLE 3  
TAFMS DISTRIBUTION OF SURVEY SAMPLE

	MONTHS TOTAL ACTIVE FEDERAL MILITARY SERVICE					
	1-48	49-96	97-144	145-192	193-240	241+
NUMBER IN AFS 361X1 SAMPLE	256	138	78	56	51	12
PERCENT IN AFS 361X1 SAMPLE	43%	23%	13%	10%	9%	2%

TABLE 4  
COMMAND REPRESENTATION OF 361X1 TASK DIFFICULTY AND TRAINING EMPHASIS RATERS

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF TASK DIFFICULTY RATERS</u>	<u>PERCENT OF TRAINING EMPHASIS RATERS</u>
AFCC	92	95	90
ATC	3	2	3
OTHER	5	3	7
TOTAL	100	100	100

## CAREER LADDER STRUCTURE

A key aspect of the Occupational Analysis Program is to examine the job structure of each specialty on the basis of what people are actually doing in the field, rather than on the basis of what official career ladder documents say they are doing. This analysis of actual job structure is made possible by the use of the Comprehensive Occupational Data Analysis Programs (CODAP). By using CODAP, jobs are identified on the basis of similarity in tasks performed and the relative time spent performing those tasks.

The specialty structure analysis process consists of determining the functional job structure of career ladder personnel in terms of job types, clusters, and independent job types. A job type is a group of individuals who perform many of the same tasks and also spend similar amounts of time performing them. When there is a substantial degree of similarity between different job types, they are grouped together and labeled as clusters. Finally, there are often cases of specialized job types that are too dissimilar to be grouped into any cluster. These unique groups are labeled independent job types.

### Specialty Overview

The job structure of the Cable Splicing Installation and Maintenance career ladder was determined by performing a job type analysis of the 596 survey respondents. Based on similarity of tasks performed and the amount of time spent in performing each task, the jobs performed by the 361X1 respondents are listed below and illustrated in Figure 1. (Each job group is identified with a group identification number to cross reference the groups to computer printouts included in the statistical summary package provided to selected users. These identification numbers are shown as GRP numbers for each type of job.)

#### I. CABLE MAINTENANCE PERSONNEL (GRP084, N=331)

- a. Junior Base Cable Personnel (GRP178, N=9)
- b. General Cable Splicers (GRP175, N=202)
- c. Senior Cable Splicers (GRP267, N=69)
- d. NCOIC Cable Maintenance (GRP261, N=20)
- e. Equipment Inspectors (GRP109, N=5)

#### II. SENIOR RESIDENT COURSE INSTRUCTORS (GRP163, N=6)

#### III. CABLE TESTERS (GRP088, N=5)

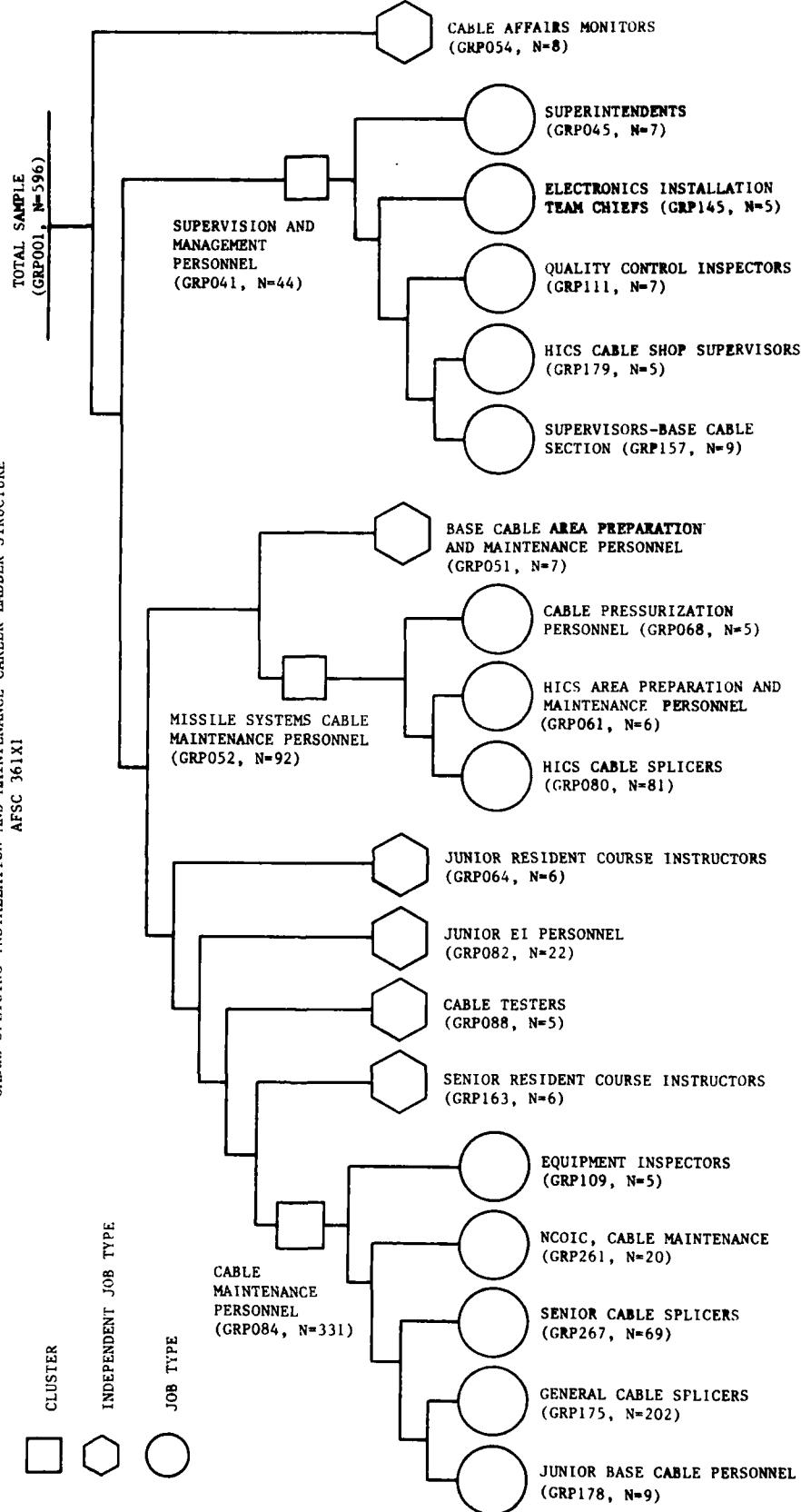
#### IV. JUNIOR ELECTRONICS INSTALLATION PERSONNEL (GRP082, N=22)

#### V. JUNIOR RESIDENT COURSE INSTRUCTORS (GRP064, N=6)

#### VI. MISSILE SYSTEMS CABLE MAINTENANCE PERSONNEL (GRP052, N=92)

- a. HICS Cable Splicers (GRP080, N=81)
- b. HICS Area Preparation and Maintenance Personnel (GRP061, N=6)
- c. Cable Pressurization Personnel (GRP068, N=5)

FIGURE 1  
CABLE SPLICING INSTALLATION AND MAINTENANCE CAREER LADDER STRUCTURE  
AFSC 361X1



VII. BASE CABLE AREA PREPARATION AND MAINTENANCE PERSONNEL (GRP051, N=7)

VIII. SUPERVISION AND MANAGEMENT PERSONNEL (GRP041, N=44)

- a. Supervisors-Base Cable Section (GRP157, N=9)
- b. HICS Cable Shop Supervisors (GRP179, N=5)
- c. Quality Control Inspectors (GRP111, N=7)
- d. Electronics Installation Team Chiefs (GRP145, N=5)
- e. Superintendents (GRP045, N=7)

IX. CABLE AFFAIRS MONITORS (GRP054, N=8)

The respondents forming these clusters and job types accounted for 87 percent of the total survey sample. The remaining 13 percent of the sample consisted of respondents who did not group with any of the job types or clusters described above.

In general, the 361X1 career ladder is relatively homogeneous in terms of the Base Cable and Electronics Installation (EI) functions. However, the data indicated that the job which was performed by the Hardened Intersite Cable Systems (HICS) personnel is somewhat different in nature from the other two areas. For example, HICS incumbents reported repairing, installing, and maintaining some types of equipment and performing tasks which are unique only to missile systems. As a result, these individuals have remained a relatively separate and distinguishable group. Conversely, individuals working in Base Cable and EI duty areas are responsible for repairing and installing a wider variety of splice cases and utilizing additional equipment that HICS personnel do not normally use. In view of this, the structure of the career ladder is fairly homogeneous in terms of the job types within a particular cluster although the individual clusters represent very distinct types of jobs.

Job Group Descriptions

The following paragraphs contain brief descriptions of the clusters, their respective job types, and the independent job types which were identified through the specialty structure analysis. In addition, Table 5 provides selected background information, and Table 6 lists job satisfaction data for the job groups. Also included at the end of this report is Appendix A, which contains representative tasks for each of the clusters, job types, and independent job types.

I. CABLE MAINTENANCE PERSONNEL (GRP084, N=331). These incumbents represented the largest cluster that was identified within the 361X1 career ladder, accounting for 56 percent of the sample. These 331 incumbents performed a wide range of tasks related to the preparation and maintenance of work areas, performing cables tests and corrective functions, installing communications systems cables, and splicing cables. Sixty-eight percent of these respondents hold a 5-skill level, with the remainder of the personnel in this group divided almost equally between the 3- and 7-skill levels (see Table 5). This group has an average paygrade of E-4, with an average of 74 months TAFMS. Overall, these individuals reported performing about 143 tasks. Their job typically involves such tasks as:

- establishing talking circuits
- identifying or tagging conductors
- installing test splices or closures
- flash testing splices or closures
- installing lead sleeves

The first job type to be identified within this cluster was the Junior Base Cable Personnel (GRP178, N=9). Although members of this group perform many of the basic installation and maintenance tasks as other respondents within the Cable Maintenance Personnel cluster, their job is slightly more limited in scope. These incumbents performed a small number of tasks (72) than any other group within the same cluster, and spent a large percentage of their time on tasks which were related to sealing cables. Their job frequency included such functions as:

- preparing lead sleeves for sealing
- flash testing splices or closures
- excavating splicing pits or cable trenches using hand tools
- removing or installing lead sleeves
- bridge-splicing telephone conductors using mechanical connectors

In terms of background information, 44 percent of these respondents are still in their first enlistment, and 44 percent hold the 3-skill level. It is interesting to note that while these incumbents have the least number of months in the 361X1 career field (30) than any group within the cluster, they do not have the lowest average number of months TAFMS (63). This may partially be due to the fact that a third of these respondents have recently been retrained from other specialties.

The second group existing within the cluster were the General Cable Splicers (GRP175, N=202). These individuals represent the largest job type to be identified, comprising nearly 34 percent of the survey sample. The composition of this group is divided fairly equally between base communications maintenance and EI personnel, indicating the great deal of overlap which is present between these two duty areas. The job of these respondents involves performing a wide range of tasks which are related to general equipment operation and the maintenance and repairing of cables and equipment. This includes such tasks as:

- installing auxiliary sleeves
- operating splicer trucks
- wrapping completed splices with muslin or plastic
- making temporary or emergency splice seals
- installing lead wedges, disks, or end plates
- placing or operating water pumps

Seventy-nine percent of these incumbents held the 5-skill level, and had an average of 56 months TAFMS. Over 58 percent of the members of this group are still in their first enlistment, and they reported performing an average of 116 tasks. Although they appear relatively satisfied with their job, 56 percent of these individuals felt that they probably would not reenlist.

Another job type included within the cluster were the Senior Cable Splicers (GRP267, N=69). The survey data indicated that this group is also comprised of both base communications maintenance and EI personnel. These respondents performed the greatest number of tasks (225) of any group within the sample. While these incumbents perform the same basic range of technical tasks as the General Cable Splicers, greater percentages of these respondents also reported performing an additional number of administrative and supervisory tasks. Such tasks included:

- interpreting cable records or cable splicing diagrams
- coordinating with using agencies before opening sheaths or working on pressurization systems
- interpreting cable transfer work sheets or cut sheets
- interpreting CIRS or plant-in-place records
- supervising cable splicing installation and maintenance specialists (AFSC 36151)
- supervising apprentice cable splicing installation and maintenance specialists (AFSC 36131)

The average paygrade for these respondents is approximately E-5, and the average number of months TAFMS among these incumbents is 109 months.

Another very senior group that has been identified within the cluster is the NCOICs of Cable Maintenance (GRP261, N=20). Seventy-five percent of these respondents hold a 7-skill level, and they reported having an average of 156 months TAFMS. Greater percentages of these individuals spend time performing tasks related to the organizing of work assignments and the supervision of other personnel than any other group within the cluster. Their job includes such tasks as:

- planning work assignments
- determining work priorities
- scheduling work assignments
- planning cable installations, modifications, removals, or rehabilitation
- orienting newly assigned personnel
- supervising cable splicing installation and maintenance specialists (AFSC 36151)

These incumbents perform an average of 197 tasks, and have an average pay-grade of approximately E-6. Fifty-five percent of these respondents are assigned to overseas locations.

The last job type to be identified within the cluster was the Equipment Inspectors (GRP109, N=5). Respondents in this group spent a large portion of their time on the job performing tasks related to the inspection and maintenance of tools, equipment, and vehicles. This typically involved such tasks as:

- inspecting work areas for hazardous working conditions
- performing vehicle operator inspections using forms such as AFTO Form 373 or AFTO Form 374
- inspecting vehicles or special purpose equipment
- inspecting cable vaults, handholes, or manholes
- inspecting hand or special purpose tools
- maintaining tools or equipment

All five of these individuals hold the 5-skill level, and perform an average of 101 tasks. In addition, they have an average of 93 months TAFMS, and an average paygrade of E-4.

II. SENIOR RESIDENT COURSE INSTRUCTORS (GRP163, N=6). Members of this group perform a large number of tasks related to conducting classroom training, and testing and evaluation of resident course trainees. In addition, these incumbents spend a relatively large percentage of their time inspecting equipment, work areas, and work performed by other personnel. This usually includes such tasks as:

- conducting resident course classroom training
- evaluating progress of resident course students
- inspecting work areas for hazardous working conditions
- inspecting in-progress work
- inspecting climbing equipment, poles or areas prior to ascending poles
- evaluating compliance with work standards

These respondents have an average paygrade of approximately E-5, and perform an average of 79 tasks.

III. CABLE TESTERS (GRP088, N=5). Although all members of this independent job type do perform a limited number of cable sealing tasks these respondents also spend a greater percentage of their time than any other group within the survey sample on those tasks which are related to the performance of cables tests and corrective functions. Their job typically involves:

- testing circuits or cable pairs for resistance
- locating cable faults using delcon cable fault locators
- making wet section throws
- performing insulation resistance tests
- testing circuits or cable pairs for voltage

These respondents represent a relatively junior group, as three of the five members of this group hold the 3-skill level, with the remaining two members holding 5- and 7-skill levels respectively. Personnel within this group perform an average of only 52 tasks.

IV. JUNIOR ELECTRONICS INSTALLATION PERSONNEL (GRP082, N=22). Survey data indicated that these incumbents have an average of only 42 months TAFMS, and an average of only 30 months in the career field. Although members of this group do perform many of the basic tasks related to cable splicing and maintenance, their job appears to be slightly limited in scope. These respondents spend the greatest percentage of their time performing such tasks as:

- operating splicer trucks
- establishing talking circuits
- removing or installing lead sleeves
- bridge-splicing telephone conductors using mechanical connectors
- preparing lead sleeves for sealing

Over 68 percent of the personnel within this group are still in their first enlistment, and they have an average paygrade of approximately E-3. These individuals perform an average of 54 tasks.

V. JUNIOR RESIDENT COURSE INSTRUCTORS (GRP064, N=6). Similar to the Senior Resident Course Instructors, these incumbents perform a large number of tasks related to the conducting of classroom training. Members of this group, however, do not perform many of the inspection and evaluation tasks that most of their senior counterparts typically perform. In addition, they spend slightly greater percentages of their time on a number of more technical tasks. Their job usually includes:

- conducting resident course classroom training
- administering tests
- flash testing splices or closures
- installing lead sleeves
- scoring tests

This group performs fewer tasks than the more senior instructors (45 versus 79), and in addition, they have an average of only 46 months in the career field compared to an average of 77 for the other group.

VI. MISSILE SYSTEMS CABLE MAINTENANCE PERSONNEL (GRP052, N=92). This cluster, which represents approximately 15 percent of the survey sample, is composed of 361X1 personnel who work on Hardened Intersite Cable Systems (HICS). Members of this group repair and maintain primarily ATI and Terminal (HICS) splice cases and install numerous other types of equipment which are unique to missile systems only. In addition, these incumbents spend relatively large percentages of their time performing those tasks which are involved in pressurizing and maintaining cable pressure systems. Their job typically includes such tasks as:

- traveling to or from missile cable work areas
- assembling ATI splice cases
- adjusting HICS pressure contactors
- repairing ATI pressure component assemblies
- straight-splicing HICS cable using mechanical connectors
- installing or removing HICS pressure contactor assemblies

The average paygrade of these incumbents is approximately E-4, and they have an average of 54 months TAFMS. Over 65 percent of the members of this group are still in their first enlistment, and they perform an average of 83 tasks. While job satisfaction is fairly high among these respondents, 60 percent felt that they would not, or probably would not, reenlist.

The first group to be identified within this cluster was the HICS Cable Splicers (GRP080, N=81). Because these respondents account for the majority of the personnel within the Missile Systems Cable Maintenance Cluster, the job which they perform is nearly identical to that which was previously mentioned in the description of the cluster as a whole. Overall, as characteristic of the entire cluster, these respondents spend much of their time on the job working with ATI splice cases, HICS pressure contactors, and ATI pressure component assemblies, all of which are basically unique to missile systems only. This involves such tasks as:

bridge-splicing HICS cable using mechanical connectors  
installing or removing HICS pressure contactors  
performing preventive maintenance inspections (PMI) on HICS  
cable yards  
installing or removing HICS pressure contactor assemblies  
repairing ATI pressure component assemblies

Sixty-two percent of these respondents are still in their first enlistment, and have an average of 59 months TAFMS. The average paygrade for personnel in this group is E-4.

The next group to be identified in the cluster was the HICS Area Preparation and Maintenance Personnel (GRP061, N=6). The job of this small group of six respondents is primarily involved with operating the necessary equipment and performing those tasks which are required to prepare work areas for cable splicing and maintenance activities. This will usually involve such tasks as:

washing or waxing vehicles or trailers  
traveling to or from missile cable work areas  
excavating splicing pits or cable trenches using hand tools  
loading or replenishing splicing materials prior to dispatch  
of splicer trucks  
operating splicer trucks  
operating backhoes

These respondents represent a fairly junior group, with 100 percent of them holding the 3-skill level. In addition, all of them are still in their first enlistment, having an average of only 13 months TAFMS. Personnel in this group also perform an average of 31 tasks, which seems to indicate that their job may be more limited in scope due to their relatively low experience levels.

The last group to be described in this cluster is the Cable Pressurization Personnel (GRP068, N=5). These members spend greater percentages of their time than any other group within the survey sample on tasks which are related to pressurizing and maintaining cable pressurization systems. This frequently includes:

adjusting HICS pressure contactors  
repairing ATI pressure component assemblies  
performing preventive maintenance inspections (PMIs) on air-dryer assemblies  
locating pressure leaks with solution tests  
testing pressure contactors

These incumbents are also fairly junior, with 60 percent of them holding the 3-skill level. All of these respondents are also in their first enlistment, and have an average paygrade of E-3.

VII. BASE CABLE AREA PREPARATION AND MAINTENANCE PERSONNEL (GRP051, N=7). The job of these members, similar to the one performed by the HICS Area Preparation and Maintenance Personnel, primarily consists of

operating various types of equipment and doing a number of other tasks which are required to prepare work areas for cable splicing or maintenance functions. Their job typically includes:

- removing or replacing manhole covers
- operating splicer trucks
- traveling to or from base work areas
- erecting barriers or manhole guards around open trenches or pits
- erecting traffic warning devices
- testing manholes for combustible gases

Similar to their HICS counterparts, the majority of these respondents hold a 3-skill level and are in their first enlistment. The average paygrade for this group was also approximately E-3.

VIII. SUPERVISION AND MANAGEMENT PERSONNEL (GRP041, N=44). This cluster, representing approximately seven percent of the sample, is comprised of individuals who perform a large number of supervisory and planning functions. These incumbents are responsible for counseling and evaluating subordinates, as well as prioritizing and scheduling work assignments. Their job typically involves:

- counseling personnel on personal or military related problems
- supervising cable-splicing installation and maintenance specialists (AFSC 36151)
- evaluating compliance with work standards
- planning work assignments
- determining work priorities

Eighty percent of these respondents hold a 7-skill level, and have an average paygrade of E-6. Members of this group also have an average of 163 months TAFMS and perform approximately 101 tasks.

The first group in this cluster is the Supervisors-Base Cable Section (GRP157, N=9). Assigned primarily to base communications maintenance duty areas, they spend the majority of their time managing and evaluating personnel as well as planning and inspecting work assignments and areas. This typically involves:

- planning work assignments
- interpreting policies, directives, or procedures
- supervising cable splicing installation and maintenance specialists (AFSC 36151)
- evaluating compliance with work standards
- analyzing workload requirements
- scheduling leaves or passes

As is characteristic of nearly all personnel within this cluster, these incumbents represent a fairly senior and experienced group. For example, 89 percent of these members hold a 7-skill level, and overall, have an average paygrade of approximately E-7. In addition, these respondents reported having approximately 199 months TAFMS, with 67 percent assigned to overseas locations.

The second group to be identified within the cluster was the HICS Shop Supervisors (GRP179, N=5). Members of this group, although working on Hardened Intersite Cable Systems, perform many of the same basic supervisory functions as their counterparts in the base cable sections. There are a number of basic tasks, however, which are unique to this group. These tasks include:

- inspecting Hardened Intersite Cable Splices
- inspecting HICS cable for hardness integrity
- performing preventive maintenance inspections (PMI) on HICS cable yards

These members have an average paygrade of E-6, and perform an average of over 202 tasks.

Another group within the same cluster is the Quality Control Inspectors (GRP111, N=7). These incumbents inspect and evaluate work areas, equipment, and tools, as well as completed or in-progress work in order to determine if the appropriate standards and specifications have been adequately met. Their job frequently involves such tasks as:

- inspecting in-progress work
- inspecting buried cable installations for compliance with technical directives or specifications
- inspecting grounds or bonding devices
- inspecting or reporting evidences of corrosion
- coordinating final quality control verification tests with receiving installations

Eighty-six percent of these respondents are located overseas, and the average paygrade for the group is E-6. In addition, eighty-six percent of these individuals hold a 7-skill level. Reenlistment intentions among this group is very low, as only two of these respondents probably will reenlist even though all other job satisfaction indices were fairly high.

The fourth group to be described were the Electronics Installation Team Chiefs (GRP145, N=5). Similar to the other members of the cluster, these EI personnel are responsible for counseling and supervising their subordinates, annotating and interpreting records and forms, and coordinating activities with other agencies. This includes such tasks as:

- obtaining right-of-way, road permits, digging permits, or other clearances
- coordinating prior to installation of cable, antenna, or inside plant schemes with using organization
- supervising cable splicing installation and maintenance specialists (AFSC 36151)
- annotating as-built or as-installed drawings
- interpreting cable transfer work sheets or cut sheets

Four of these individuals hold a 7-skill level, with the remaining member holding a 5-skill level. This group has an average of 176 months TAFMS.

The last group to be identified in the Supervision and Management cluster is the Superintendents (GRP045, N=7). This group is comprised of both EI, base cable, and HICS personnel. On the average, these incumbents supervise an average of 11 subordinates, more than any other group within the sample. Members of this small group supervise civilian personnel as well as other 361X1 supervisors who hold 7-skill levels. These individuals also spend large percentages of their time on tasks which are related to OJT and other training programs. This typically includes:

- supervising cable splicing installation and maintenance
- supervisors (AFSC 36171)
- supervising civilian personnel
- assigning on-the-job training (OJT) trainers
- assigning personnel to duty positions
- directing or implementing OJT programs
- maintaining training records, charts, or graphs

These individuals have a greater number of months in the career field (152) than any other group which was identified, and they have an average of 196 months TAFMS.

IX. CABLE AFFAIRS MONITORS (GRP054, N=8). Members of this group perform a job which appears to be fairly administrative in structure. They have reported performing an average of only 21 tasks, nearly all of which are related to the maintenance of records and files, or the annotation and interpretation of various forms and diagrams. Their job frequently encompasses such tasks as:

- maintaining cable records, diagrams, or card files
- making entries on plant-in-place records
- interpreting CIRS or plant-in-place records
- annotating as-built or as-installed drawings
- maintaining standard publications, records, or correspondence files

Seventy-five percent of these individuals hold a 5-skill level, and have an average of 154 months TAFMS. Survey data, however, indicates that job satisfaction among members of this group is the lowest of any group within the sample. This may be a result of the fact that their job is fairly restricted in its range of potential activities which these respondents may perform.

### Structure Summary

Overall, as previously noted, the jobs of the Base Cable and Electronics Installation personnel were very similar in terms of the tasks performed and the relative percentage of time spent performing them. The job of the HICS personnel has some unique aspects, however, due to a number of different types of procedures and equipment that is used only for missile systems. In addition, as a whole, those respondents assigned to HICS duty areas represented a slightly more junior group than those incumbents who were assigned to the other two areas.

An examination of job satisfaction information reveals that while the majority of personnel in the 361X1 career ladder found their job fairly interesting, there were a number of groups that were identified which had relatively low reenlistment intentions. This trend was particularly noticeable among members of the Missile Systems Cable Maintenance Personnel Cluster, Cable Affairs Monitors, and Quality Control Inspectors.

TABLE 5  
BACKGROUND DATA FOR FUNCTIONAL JOB GROUPS

	SENIOR RESIDENT COURSE INSTRUCTORS (GRP163)	CABLE MAINTENANCE PERSONNEL (GRP084)	JUNIOR RESIDENT COURSE INSTRUCTORS (GRP088)	JUNIOR EJ PERSONNEL (GRP082)	MISSILE SYSTEMS MAINTENANCE PERSONNEL (GRP064)	BASE CABLE AREA PREPARATION AND MAINTENANCE PERSONNEL (GRP052)	SUPERVISION AND MANAGEMENT PERSONNEL (GRP051)	CABLE AFFAIRS MONITORS (GRP054)
NUMBER IN GROUP:	331	6	5	22	6	92	7	8
PERCENT OF SAMPLE:	56%	1%	1%	4%	1%	15%	1%	1%
PERCENT LOCATED OVERSEAS:	35%	-	40%	36%	-	-	43%	13%
<hr/>								
DAFSC DISTRIBUTION								
36131	14%	17%	60%	50%	-	38%	57%	-
36151	68%	50%	20%	46%	83%	47%	43%	16%
36171	17%	33%	20%	-	17%	14%	-	80%
NOT REPORTED	1%	-	-	4%	-	1%	-	25%
								-
AVERAGE GRADE:	E-4	E-5	E-4	E-3	E-4	E-4	E-3	E-5
AVERAGE MONTHS IN CAREER	54	77	33	30	46	34	27	126
FIELD:								
AVERAGE MONTHS IN SERVICE (TAMS):	74	79	57	42	57	54	48	163
PERCENT IN FIRST ENLISTMENT:	45%	33%	40%	68%	50%	65%	57%	7%
PERCENT MEMBERS SUPERVISING:	31%	17%	20%	14%	-	25%	14%	77%
AVERAGE NUMBER DIRECTLY SUPERVISED:	1	1	*	*	-	1	*	5
AVERAGE NUMBER OF TASKS PERFORMED:	143	79	52	54	45	83	33	101
JOB DIFFICULTY INDEX (JD1):	14.6	12.8	9.0	7.5	9.3	12.5	3.5	15.9
* DENOTES LESS THAN ONE PERCENT								

7

\* DENOTES LESS THAN ONE PERCENT

TABLE 6  
JOB SATISFACTION DATA FOR FUNCTIONAL JOB GROUPS  
(PERCENT MEMBERS RESPONDING)\*

	SENIOR RESIDENT COURSE MAINTENANCE INSTRUCTORS PERSONNEL (GRP163)	CABLE MAINTENANCE INSTRUCTORS PERSONNEL (GRP084)	JUNIOR RESIDENT COURSE TESTERS (GRP088)	JUNIOR EI PERSONNEL (GRP082)	JUNIOR RESIDENT COURSE INSTRUCTORS (GRP064)	MISSILE SYSTEMS MAINTENANCE PERSONNEL (GRP052)	BASE CABLE AREA PREPARATION AND MAINTENANCE PERSONNEL (GRP051)	SUPERVISION AND MANAGEMENT PERSONNEL (GRP041)	CABLE AFFAIRS MONITORS (GRP054)
<u>I FIND MY JOB:</u>									
DULL	2	-	5	-	-	8	14	9	25
SO-SO	7	17	20	27	-	23	-	14	50
INTERESTING	89	67	80	68	100	67	72	77	25
<u>MY JOB UTILIZES MY TALENTS:</u>									
LITTLE OR NOT AT ALL	8	-	20	14	-	22	14	11	37
FAIRLY WELL TO VERY WELL	71	83	60	86	83	71	86	59	50
EXCELLENTLY TO PERFECTLY	20	-	20	-	17	7	-	30	13
<u>MY JOB UTILIZES MY TRAINING:</u>									
LITTLE TO NOT AT ALL	6	-	20	14	17	16	29	14	62
FAIRLY WELL TO VERY WELL	74	83	80	73	50	76	71	45	25
EXCELLENTLY TO PERFECTLY	18	17	-	13	33	6	-	41	13
<u>I PLAN TO REENLIST:</u>									
NO OR PROBABLY NO	48	33	20	59	33	60	29	41	62
YES OR PROBABLY YES	49	67	80	36	67	40	71	59	38

\*SOME COLUMNS MAY NOT ADD UP TO 100 PERCENT DUE TO NO RESPONSE

## ANALYSIS OF DAFSC GROUPS

In addition to identifying the job structure of the 361X1 career ladder, the 3-, 5-, and 7-skill level groups within the survey sample were also examined. This analysis revealed similarities and differences between these groups in terms of the tasks which they perform and the relative percentage of time they spent on duties. Information from this analysis may also be useful in determining the accuracy of career ladder documents, such as the AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS).

Overall, as is common in many specialties, the job of the 3- and 5-skill level personnel is primarily technical in nature. Consequently, members of these groups reported spending an average of 83 percent and 78 percent of their time, respectively, on such functions. Three duties, preparing and maintaining work areas, installing communications system cables, and performing cables tests and corrective functions, accounted for almost 50 percent of the time on the job for both groups, indicating that the main focus of the job is on these areas (see Table 7). In addition, both skill levels were also very similar in terms of the tasks which they performed. Tables 8 and 9 provide lists of those tasks which are most commonly performed by the 3- and 5-skill level incumbents. There were some differences, however, between these respondents. Slightly larger percentages of the 3-skill level respondents reported installing or repairing a number of different types of equipment which are unique to Hardened Intersite Cable Systems. This is primarily a result of the fact that personnel in this duty area accounted for a large percentage of the 3-skill level incumbents the survey sample. In addition, there were also a number of other tasks which differentiated between the two groups. These tasks are presented in Table 10. As demonstrated by this table, greater percentages of the respondents holding a 5-skill level performed a variety of tasks ranging in complexity from making cable transfers to directing traffic at work areas. However, the diversity of these tasks also indicates that there were no large duty differences between the two groups.

In comparison, those respondents holding 7-skill levels reported spending much of their time on supervisory and administrative functions. These incumbents spent an average of over 55 percent of their time on tasks related to these duties. Many of these tasks involve inspecting equipment and supplies, interpreting records and diagrams, and supervising and counseling subordinates (see Table 11). These individuals also spent 45 percent of their time on technical tasks. Many of these tasks were related to the conducting of cables tests, such as locating cable faults and pressure leaks or testing circuits or cable pairs for resistance, continuity, and voltage. Table 12 provides a list of those tasks which best differentiated between the 5- and 7-skill level respondents. As demonstrated by this table, individuals holding the 7-skill level are involved with many activities related to personnel management and perform fewer tasks related to preparing and maintaining work areas.

DAFSC skill levels were also examined across job groups. As illustrated by Table 13, the General Cable Splicers accounted for the majority of the 5-skill level respondents. In addition, while the DAFSC 36171 personnel were distributed fairly evenly among many of the identified job groups, substantial numbers of the 3-skill level incumbents were either HICS Cable Splicers or General Cable Splicers.

TABLE 7  
RELATIVE PERCENTAGE OF TIME SPENT ON DUTIES BY DAFSC GROUPS

DUTIES	36131 PERSONNEL (N=118)	36151 PERSONNEL (N=336)	36171 PERSONNEL (N=135)
A ORGANIZING AND PLANNING	2	3	11
B DIRECTING AND IMPLEMENTING	1	2	10
C INSPECTING AND EVALUATING	9	8	16
D TRAINING	2	4	9
E INTERPRETING AND MAINTAINING PUBLICATIONS, RECORDS, REPORTS, AND DIAGRAMS	3	5	9
F MAINTAINING TOOLS AND EQUIPMENT	8	5	4
G PREPARING AND MAINTAINING WORK AREAS	22	21	10
H INSTALLING COMMUNICATIONS SYSTEM CABLES	10	13	6
I PERFORMING CABLES TESTS AND CORRECTIVE FUNCTIONS	15	16	11
J SPLICING CABLES	3	3	2
K INSTALLING SPLICE CASES, LOADING COILS, BUILDOUT CAPACITORS, AND ELECTRICAL SURGE ARRESTOR CABLE STUBS	3	2	1
L SEALING CABLES	9	10	5
M PRESSURIZING AND MAINTAINING CABLE PRESSURE SYSTEMS	13	8	6

TABLE 8  
REPRESENTATIVE TASKS PERFORMED BY DAFSC 36131 PERSONNEL  
(N=118)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
F200 WASH OR WAX VEHICLES OR TRAILERS	81
I365 FLASH TEST SPLICES OR CLOSURES	75
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	73
M408 TAKE PRESSURE READINGS USING PRESSURE TESTING GAUGES	67
I297 LOCATE CABLE FAULTS USING MULTIMETERS	66
G242 TRAVEL TO OR FROM BASE WORK AREAS	64
I293 ESTABLISH TALKING CIRCUITS	60
M385 CHARGE CABLE SYSTEMS WITH NITROGEN OR DRY AIR	60
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	60
G205 CLEAN SPLICING PITS	59
H250 CLEAN CAP CONDUCTORS	59
G223 OPERATE SPLICER TRUCKS	58
G216 EXCAVATE SPLICING PITS OR CABLE TRENCHES USING HAND TOOLS	58
I315 PERFORM INSULATION RESISTANCE TESTS	56
H247 BEND OR ARRANGE BURIED CABLES FOR SPLICING	56
G228 PLACE OR OPERATE WATER PUMPS	55
I294 IDENTIFY OR TAG CONDUCTORS	55
I329 TEST CIRCUITS OR CABLE PAIRS FOR RESISTANCE	55
I369 MAKE TEMPORARY OR EMERGENCY SPLICE SEALS	54
H258 INSTALL CABLE ROUTE SIGNS, POLE MARKERS, OR IDENTIFICATION PLATES	53
G211 ERECT BARRIERS ON MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	53
L367 INSTALL LEAD SLEEVES	53
L372 PREPARE LEAD SLEEVES FOR SEALING	53
I328 TEST CIRCUITS OR CABLE PAIRS FOR CONTINUITY	53
C113 INSPECT VEHICLES OR SPECIAL PURPOSE EQUIPMENT	52

TABLE 9  
REPRESENTATIVE TASKS PERFORMED BY DAFSC 36151 PERSONNEL  
(N=336)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
F200 WASH OR WAX VEHICLES OR TRAILERS	82
L365 FLASH TEST SPLICES OR CLOSURES	82
I293 ESTABLISH TALKING CIRCUITS	80
H250 CLEAN CAP CONDUCTORS	80
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	78
G228 PLACE OR OPERATE WATER PUMPS	77
G223 OPERATE SPLICER TRUCKS	76
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	76
I297 LOCATE CABLE FAULTS USING MULTIMETERS	75
G211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	75
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	74
I294 IDENTIFY OR TAG CONDUCTORS	74
G242 TRAVEL TO OR FROM BASE WORK AREAS	74
H247 BEND OR ARRANGE BURIED CABLES FOR SPLICING	74
G216 EXCAVATE SPLICING PITS OR CABLE TRENCHES USING HAND TOOLS	74
L373 SEAL CABLE ENDS	74
H258 INSTALL CABLE ROUTE SIGNS, POLE MARKERS, OR IDENTIFICATION PLATES	74
G205 CLEAN SPLICING PITS	73
L367 INSTALL LEAD SLEEVES	72
G234 REMOVE WATER FROM MANHOLES	72
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	72
L372 PREPARE LEAD SLEEVES FOR SEALING	72
J334 BRIDGE-SPLICING TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	72
M385 CHARGE CABLE SYSTEMS WITH NITROGEN OR DRY AIR	71
L366 INSTALL AUXILIARY SLEEVES	71

TABLE 10  
TASKS WHICH BEST DIFFERENTIATE DAFSCs 36131 AND 36151 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

<u>TASKS</u>	<u>DAFSC 36131 (N=118)</u>	<u>DAFSC 36151 (N=336)</u>	<u>DIFFERENCE</u>
K351 ASSEMBLE ATI SPLICE CASES	40	21	+19
M380 ADJUST HICS PRESSURE CONTACTORS	34	17	+17
J333 BRIDGE-SPLICE HICS CABLE USING MECHANICAL CONNECTORS	35	21	+14
M390 INSTALL OR REMOVE HICS PRESSURE CONTACTOR ASSEMBLIES	31	17	+14
M404 REPAIR ATI PRESSURE COMPONENT ASSEMBLIES	30	17	+13
F197 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON HICS CABLE YARDS	30	18	+12
I310 MAKE WORKING CABLE SECTION REPLACEMENTS	35	66	-31
H277 INSTALL QUICK-CONNECT OR PUNCH-ON TERMINALS	27	58	-31
I324 REPAIR CABLE SHEATH DEFECTS USING OTHER THAN HEAT SHRINK METHODS	32	63	-31
I308 MAKE CABLE TRANSFERS	16	46	-30
I295 IDENTIFY SPECIAL CIRCUITS, SUCH AS FIRE ALARM OR DATA CIRCUITS	25	55	-30
L363 CAST OR PREPARE DISKS OR END PLATES	36	65	-29
G201 BACKFILL BASE TELEPHONE CABLE SYSTEM SPLICING PITS OR CABLE TRENCHES	33	61	-28
J340 BUTT-SPLICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	37	65	-28
G215 ERECT TRAFFIC WARNING DEVICES	42	70	-28
G213 ERECT OR REMOVE GROUND TENTS	36	64	-28
L375 SEAL JOINTS USING TORCH METHODS	42	69	-27
H257 INSTALL CABLE RACKS OR HOOKS ON MANHOLES	28	55	-27
G237 SELECT TRAFFIC WARNING DEVICES REQUIRED FOR WORK AREAS	31	58	-27
F196 PERFORM OPERATOR MAINTENANCE ON WATER PUMPS	20	46	-26
G210 DIRECT TRAFFIC AT WORK AREAS	25	51	-26

TABLE 11  
REPRESENTATIVE TASKS PERFORMED BY DAFSC 36171 PERSONNEL  
(N=135)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
E170 PERFORM VEHICLE OPERATOR INSPECTIONS USING FORMS SUCH AS AFTO FORM 373 OR AFTO FORM 374	69
B 68 SUPERVISE CABLE SPLICING INSTALLATION AND MAINTENANCE SPECIALISTS (AFSC 36151)	67
C112 INSPECT TEST EQUIPMENT	67
E159 INTERPRET CABLE RECORDS OR CABLE SPLICING DIAGRAMS	67
C113 INSPECT VEHICLES OR SPECIAL PURPOSE EQUIPMENT	67
C114 INSPECT WORK AREAS FOR HAZARDOUS WORKING CONDITIONS	66
B 60 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	65
B 46 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	64
C102 INSPECT IN-PROGRESS WORK	63
C 99 INSPECT HAND OR SPECIAL PURPOSE TOOLS	63
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	63
C 98 INSPECT GROUNDS OR BONDING DEVICES	62
C 94 INSPECT BURIED CABLE INSTALLATIONS FOR COMPLIANCE WITH TECHNICAL DIRECTIVES OR SPECIFICATIONS	61
C108 INSPECT SPLICING MATERIALS	61
D141 ORIENT NEWLY-ASSIGNED PERSONNEL	61
C 96 INSPECT CABLE VAULTS, HANDHOLES, OR MANHOLES	60
B 65 RESOLVE TECHNICAL MAINTENANCE PROBLEMS	59
A 31 PLAN WORK ASSIGNMENTS	59
I329 TEST CIRCUITS OR CABLE PAIRS FOR RESISTANCE	59
D125 COUNSEL TRAINEES ON TRAINING PROGRESS	59
F200 WASH OR WAX VEHICLES OR TRAILERS	59
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	59
B 64 RESOLVE TECHNICAL INSTALLATION PROBLEMS	58
A 35 SCHEDULE WORK ASSIGNMENTS	58
D126 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	58

TABLE 12  
TASKS WHICH BEST DIFFERENTIATE 36151 AND 36171 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 36151 (N=336)	DAFSC 36171 (N=135)	DIFFERENCE
H250 CLEAN CAP CONDUCTORS	80	45	+35
H211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	75	46	+29
G204 CLEAN MANHOLES	67	38	+29
G205 CLEAN SPLICING PITS	73	45	+28
G215 ERECT TRAFFIC WARNING DEVICES	70	42	+28
H247 BEND OR ARRANGE BURIED CABLES FOR SPLICING	74	46	+28
H258 INSTALL CABLE ROUTE SIGNS, POLE MARKERS, OR IDENTIFICATION PLATES	74	47	+27
G228 PLACE OR OPERATE WATER PUMPS	77	57	+20
L365 FLASH TEST SPLICES OR CLOSURES	82	56	+26
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	76	50	+26
L372 PREPARE LEAD SLEEVES FOR SEALING	72	46	+26
I322 REMOVE OR INSTALL LEAD SLEEVES	70	44	+26
B 50 DRAFT CORRESPONDENCE	7	56	-49
B 46 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	16	64	-48
A 35 SCHEDULE WORK ASSIGNMENTS	12	58	-46
B 68 SUPERVISE CABLE SPLICING INSTALLATION AND MAIN- TENANCE SPECIALISTS (AFSC 36151)	23	67	-44
B 64 RESOLVE TECHNICAL INSTALLATION PROBLEMS	14	58	-44
B 65 RESOLVE TECHNICAL MAINTENANCE PROBLEMS	16	59	-43
A 31 PLAN WORK ASSIGNMENTS	16	59	-43
C 79 EVALUATE COMPLIANCE WITH WORK STANDARDS	10	51	-41
D148 REVIEW JPGS	12	52	-40
A 34 SCHEDULE LEAVES OR PASSES	8	48	-40
A 15 DETERMINE WORK PRIORITIES	17	56	-39
B 59 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES	8	47	-39

TABLE 13  
DAFSC DISTRIBUTION ACROSS JOB GROUPS

<u>JOB GROUPS</u>	<u>DAFSC 36131 (N=95)</u>	<u>DAFSC 36151 (N=282)</u>	<u>DAFSC 36171 (N=101)</u>
JUNIOR BASE CABLE PERSONNEL	4	4	1
GENERAL CABLE SPLICERS	31	159	11
SENIOR CABLE SPLICERS	4	37	27
NCOIC CABLE MAINTENANCE	1	4	15
EQUIPMENT INSPECTORS	-	5	-
SENIOR RESIDENT COURSE INSTRUCTORS	1	3	2
CABLE TESTERS	3	1	1
JUNIOR EI PERSONNEL	11	10	-
JUNIOR RESIDENT COURSE INSTRUCTORS	-	5	1
HICS CABLE SPLICERS	26	41	13
HICS AREA PREPARATION AND MAINTENANCE PERSONNEL	6	-	-
CABLE PRESSURIZATION PERSONNEL	3	2	-
BASE CABLE AREA PREPARATION AND MAINTENANCE PERSONNEL	4	3	-
SUPERVISOR-BASE CABLE SECTION	-	-	8
HICS CABLE SHOP SUPERVISORS	1	1	3
QUALITY CONTROL INSPECTORS	-	1	6
ELECTRONICS INSTALLATION TEAM CHIEFS	-	1	4
SUPERINTENDENTS	-	-	7
CABLE AFFAIRS MONITORS	-	5	2

### Summary

Overall, the jobs of the 3- and 5-skill level personnel were very similar. Both groups performed a wide range of technical tasks and used a wide variety of cable splicing equipment. At the 7-skill level, respondents also spent nearly half their time on technical tasks. Their most time-consuming functions, however, were supervisory in nature.

## COMPARISON OF SURVEY DATA TO AFR 39-1 SPECIALTY DESCRIPTIONS

A comparison was made between the survey data and the specialty descriptions of the 361X1 career ladder as outlined in AFR 39-1. Overall, these descriptions provide very accurate and complete overviews of the duties and responsibilities of personnel within the AFSC. However, the 5-skill level description contained two items which were not fully supported by the survey data. Paragraph 2c includes the use of pressurization computers in order to locate leaks in pressurized cable systems, while paragraph 2d includes the completion of maintenance data collection forms by the 5-skill level incumbents. Survey results indicated that there were actually only very small percentages of respondents who reported performing these tasks. In view of this, these two areas may warrant further review in order to determine if their continued listing in the specialty description is necessary.

## **ANALYSIS OF EXPERIENCE (AFMS) GROUPS**

Incumbents in the 361X1 career ladder were also examined in terms of TAFMS groups in order to determine how personnel utilization patterns change as a function of experience. Table 14 provides a list of the relative amount of time spent on duties by various TAFMS groups. As illustrated, as the number of months of experience increases, overall, respondents reported spending greater percentages of their time performing administrative and supervisory functions. However, the increase is not as dramatic as one would expect. Even the more experienced incumbents still performed many of the same types of technical functions as less experienced personnel. For example, members of nearly all TAFMS groups reported spending relatively substantial percentages of their time preparing and maintaining work areas, and performing cables tests and corrective functions.

### Job Satisfaction

In addition to an analysis of tasks performed, career ladder incumbents in their first enlistment (1-48 months TAFMS), second enlistment (49-96 months TAFMS), and career status (97+ months) were also examined in terms of various job satisfaction indices. As illustrated by Table 15, members of this specialty appeared to be highly satisfied with the job which they were performing. Generally, job interest and perceived utilization of talents and training for 361X1 personnel with 1-48 and 49-96 months were much higher than those of corresponding groups in a comparative sample composed of a number of similar specialties in the Mission Equipment Maintenance area. These differences, however, were much less pronounced for members of the career groups. In addition, when compared to 361X1 incumbents, reenlistment intentions were nearly identical for members of the comparative sample with 1-48 months TAFMS, while they were slightly lower for individuals composing the 49-96 months group in the comparative sample. This trend becomes sharply reversed for the more senior respondents in the career group. Overall, although nearly all job satisfaction indices were high for incumbents in this AFSC, reenlistment intentions were generally very low for first enlistment and career personnel.

### First Enlistment Personnel

For training purposes, the job of first enlistment personnel was also examined in addition to the general TAFMS analysis. Overall, these incumbents performed many of the same basic installation, repairing, and cable testing functions that were typically performed by nearly all groups within the 361X1 career ladder. Typically, the job of these respondents frequently involves detecting and locating cable faults or pressure leaks, installing lead sleeves, and making temporary or emergency splice seals (see Table 16). In addition, due to the highly technical nature of this AFSC, first enlistment personnel in this specialty must utilize a wide variety of equipment in the course of performing their job. Table 17 provides a representative listing of those pieces of equipment that were used by 30 percent or more of the 361X1 incumbents with 1-48 months TAFMS.

TABLE 14  
RELATIVE TIME SPENT ON DUTIES BY TAFMS GROUPS

DUTIES	MONTHS TAFMS				
	1-48 (N=256)	49-96 (N=138)	97-144 (N=78)	145-192 (N=56)	193-240 (N=51)
A ORGANIZING AND PLANNING	2	4	6	10	11
B DIRECTING AND IMPLEMENTING	2	3	5	9	11
C INSPECTING AND EVALUATING	7	10	10	14	16
D TRAINING	2	4	8	13	5
E INTERPRETING AND MAINTAINING PUBLICATIONS, RECORDS, REPORTS AND DIAGRAMS	3	5	7	9	10
F MAINTAINING TOOLS AND EQUIPMENT	6	6	5	6	5
G PREPARING AND MAINTAINING WORK AREAS	22	19	17	10	12
H INSTALLING COMMUNICATIONS SYSTEMS CABLES	13	12	9	6	6
I PERFORMING CABLES TESTS AND CORRECTIVE FUNCTIONS	17	15	14	9	11
J SPLICING CABLES	3	3	3	2	2
K INSTALLING SPLICE CASES, LOADING COILS, BUILDOUT CAPACITORS AND ELECTRICAL SURGE ARRESTOR CABLE STUBS					*
L SEALING CABLES	2	2	1	2	1
M PRESSURIZING AND MAINTAINING CABLE PRESSURE SYSTEMS	10	9	8	4	5
	11	8	7	6	5

\* DENOTES LESS THAN ONE PERCENT

TABLE 15  
JOB SATISFACTION DATA FOR TAFMS GROUPS  
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS				49-96 MONTHS				97+ MONTHS			
	1980		COMPARATIVE		1980		COMPARATIVE		1980		COMPARATIVE	
	361X1 RESPONDENTS (N=256)	SAMPLE (N=1,374)	361X1 RESPONDENTS (N=138)	SAMPLE (N=853)	361X1 RESPONDENTS (N=853)	SAMPLE (N=197)	361X1 RESPONDENTS (N=197)	SAMPLE (N=426)	361X1 RESPONDENTS (N=197)	SAMPLE (N=426)	361X1 RESPONDENTS (N=197)	SAMPLE (N=426)
<u>I FIND MY JOB:</u>												
DULL	4	24	5	17	6	14						
SO-SO	11	20	14	22	13	16						
INTERESTING	84	56	80	61	78	70						
NOT REPORTED	1	-	1	-	3	-						
<u>MY JOB UTILIZES MY TALENTS:</u>												
NOT AT ALL TO VERY LITTLE	14	37	12	31	10	24						
FAIRLY WELL TO VERY WELL	75	58	75	62	63	61						
EXCELLENTLY TO PERFECTLY	10	5	13	7	25	15						
NOT REPORTED	1	-	-	-	2	-						
<u>MY JOB UTILIZES MY TRAINING:</u>												
NOT AT ALL TO VERY LITTLE	10	30	11	28	13	25						
FAIRLY WELL TO VERY WELL	75	62	76	63	61	59						
EXCELLENTLY TO PERFECTLY	13	7	13	8	25	15						
NOT REPORTED	2	1	-	1	1	1						
<u>I PLAN TO REENLIST:</u>												
NO OR PROBABLY NO	63	66	38	51	63	32						
YES OR PROBABLY YES	35	33	60	48	35	67						
NOT REPORTED	2	1	2	1	1	1						

COMPARATIVE SAMPLE TAKEN FROM ALL MISSION EQUIPMENT MAINTENANCE SPECIALTIES SURVEYED IN 1980; INCLUDES AFSC's 30XXX, 31XXX, 32XXX, 34XXX, 36XXX, 40XXX, 42XXX, 43XXX, 44XXX, AND 46XXX

TABLE 16  
REPRESENTATIVE TASKS PERFORMED BY 361X1 INCUMBENTS  
WITH 1-48 MONTHS TAFMS

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING (N=256)</u>
F200 WASH OR WAX VEHICLES OR TRAILERS	85
L365 FLASH TEST SPLICES OR CLOSURES	82
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	80
I297 LOCATE CABLE FAULTS USING MULTIMETERS	78
I293 ESTABLISH TALKING CIRCUITS	77
H250 CLEAN CAP CONDUCTORS	77
M385 CHARGE CABLE SYSTEMS WITH NITROGEN OR DRY AIR	73
G223 OPERATE SPLICER TRUCKS	72
G242 TRAVEL TO OR FROM BASE WORK AREAS	72
G205 CLEAN SPLICING PITS	72
G216 EXCAVATE SPLICING PITS OR CABLE TRENCHES USING HAND TOOLS	71
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	71
G228 PLACE OR OPERATE WATER PUMPS	71
M408 TAKE PRESSURE READINGS USING PRESSURE TESTING GAUGES	70
H247 BEND OR ARRANGE BURIED CABLES FOR SPLICING	70
I294 IDENTIFY OR TAG CONDUCTORS	69
G211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	69
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	69
L373 SEAL CABLE ENDS	69
L369 MAKE TEMPORARY OR EMERGENCY SPLICE SEALS	68
H258 INSTALL CABLE ROUTE SIGNS, POLE MARKERS, OR IDENTIFICATION PLATES	68
L367 INSTALL LEAD SLEEVES	67
I329 TEST CIRCUITS OR CABLE PAIRS FOR RESISTANCE	67
I315 PERFORM INSULATION RESISTANCE TESTS	67
L372 PREPARE LEAD SLEEVES FOR SEALING	66

TABLE 17  
EQUIPMENT USED BY 30 PERCENT OR MORE FIRST ENLISTMENT PERSONNEL

<u>EQUIPMENT</u>	<u>PERCENT MEMBERS PERFORMING (N=256)</u>
HAND TOOLS	93
PICKS OR SHOVELS	88
CRIMPING TOOLS	87
WATER PUMPS (PORTABLE)	84
PRESSURE TESTING REGULATORS	84
SPLICERS MAINTENANCE TRUCKS	83
LADDERS	82
200 CF NITROGEN CYLINDERS	80
STENCIL KITS	76
WINCHES	75
METAL STAMP KITS	75
WALKING OR MEASURING WHEELS (CYLOMETERS)	74
INJECTION GUNS	74
PORTABLE HEATERS	73
FIRST-AID KITS	72
AIR DRYER COMPRESSORS AND METER PANELS	72
ACETYLENE CYLINDERS	71
TRAFFIC WARNING DEVICES	69
ACETYLENE TORCH KITS	69
MANHOLE GUARDS	67
PORTABLE PRESSURE TESTING KITS	66
MANHOLE HOOKS	66
ELECTRIC DRILLS	64
SPLICER SEAT AND TOOL BOX	62
GROUND TENTS	61
TORQUE WRENCHES	57
PROPANE CYLINDERS	54
PORTABLE GENERATORS	53
TUBE CUTTERS	52
CLIMBING EQUIPMENT	52
GPC-28AF GENERAL PURPOSE UNITS	51
FAULT ALARM LOCATOR PANELS	51
WIRE WRAP GUNS	50
VENTILATOR BLOWERS OR SAILS	50
END PLATE MOLD SETS	50
AERIAL HANDLINES AND BUCKETS	50
AERIAL TENTS AND PLATFORMS	47
TEMPORARY LASHING WIRE CLAMPS	46
SAFETY KITS	45
CABLE REEL TRAILERS	44
CABLE RACKING JACKS	44

TABLE 17 (CONTINUED)

## EQUIPMENT USED BY 30 PERCENT OR MORE FIRST ENLISTMENT PERSONNEL

<u>EQUIPMENT</u>	<u>PERCENT MEMBERS PERFORMING (N=256)</u>
TRACTOR-BACKHOES	43
SOLDERING COPERS	40
MANHOLE RAIN RINGS	40
FIRE POTS OR GAS FURNACES	38
DUCT RODS	37
CABLE REEL JACKS	37
CABLE BENDERS	37
THERMOMETERS	35
MANHOLE CABLE SHEATHS	34
FLARING TUBING KITS	34
CABLE MARKING GAUGES (HICS)	33
AERIAL CABLE BLOCKS	33
CABLE LASHING MACHINES	32
CABLE GRIPS	32
BONDING STRAP ALIGNMENT TOOLS (HICS)	32
UNDERGROUND CABLE GUIDES	31
24 CF NITROGEN CYLINDERS	31

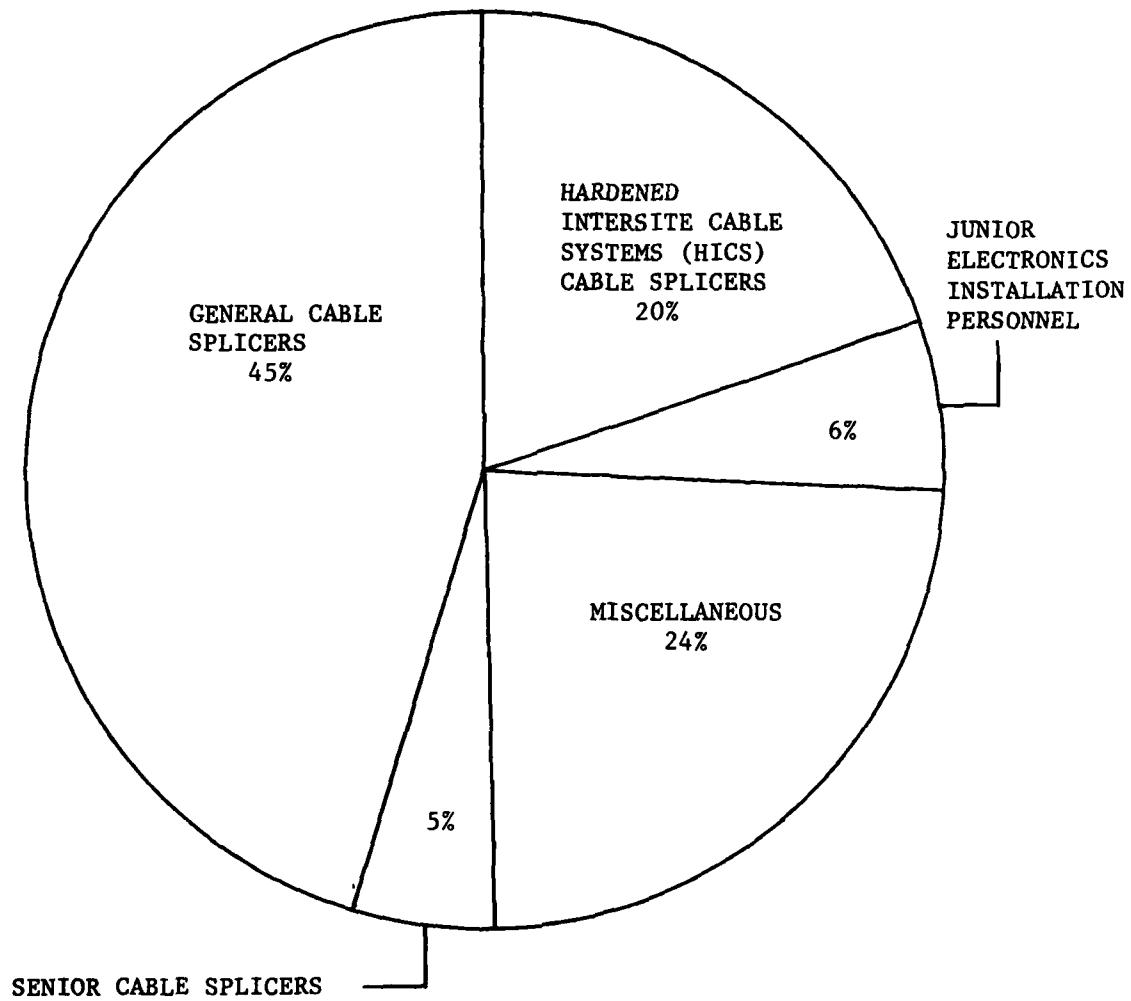
In terms of distribution across the career ladder, the majority of the first enlistment incumbents were relatively concentrated in two main areas. Two job groups, the General Cable Splicers and the HICS Cable Splicers together accounted for over 65 percent of these respondents (see Figure 2). The remaining 35 percent of these individuals were scattered fairly evenly among the major job groups that have been identified within the sample (see Table 18).

TABLE 18  
FIRST ENLISTMENT PERSONNEL DISTRIBUTION ACROSS MAJOR JOB GROUPS

<u>GROUP</u>	<u>FIRST ENLISTMENT PERSONNEL (N=256)</u>
JUNIOR BASE CABLE PERSONNEL	4
GENERAL CABLE SPLICERS	116
SENIOR CABLE SPLICERS	13
NCOIC CABLE MAINTENANCE	2
EQUIPMENT INSPECTORS	-
SENIOR RESIDENT COURSE INSTRUCTORS	2
CABLE TESTERS	2
JUNIOR EI PERSONNEL	15
JUNIOR RESIDENT COURSE INSTRUCTORS	3
HICS CABLE SPLICERS	50
HICS AREA PREPARATION AND MAINTENANCE PERSONNEL	6
CABLE PRESSURIZATION PERSONNEL	4
BASE CABLE AREA PREPARATION AND MAINTENANCE PERSONNEL	4
SUPERVISORS-BASE CABLE SECTION	-
HICS CABLE SHOP SUPERVISORS	-
QUALITY CONTROL INSPECTORS	-
ELECTRONICS INSTALLATION TEAM CHIEFS	-
SUPERINTENDENTS	-
CABLE AFFAIRS MONITORS	1
NOT GROUPED	34

FIGURE 2

DISTRIBUTION OF FIRST ENLISTMENT PERSONNEL ACROSS CAREER LADDER JOBS  
(PERCENT MEMBERS RESPONDING)  
(N=256)



## ANALYSIS OF CONUS VERSUS OVERSEAS GROUPS

A comparison was made between the tasks performed by DAFSC 36151 personnel stationed within the CONUS and those located overseas. Results indicated that while the job performed by both groups was basically the same, a number of variations did exist. Those respondents who were assigned overseas reported performing a slightly higher average number of tasks than those within the CONUS (134 versus 104). In addition, greater percentages of personnel overseas performed tasks that were related to the installation and maintenance of telephone cable than their counterparts in the CONUS (see Table 19). This may be due to the fact that military personnel are often tasked with performing a number of functions overseas that are frequently performed by, or contracted out to commercial telephone companies within the CONUS. The data also indicated that substantial percentages of respondents located in the CONUS work in support of Hardened Intersite Cable Systems (HICS). There are no corresponding types of jobs overseas.

Finally, there were some background differences between the two groups. Overseas respondents reported having a higher average paygrade, (4.2 versus 3.9) while both groups had approximately equal amounts of time in service (60 months for incumbents within the CONUS and 65 months for those overseas). It was also interesting to note that while both groups were similarly high on nearly all job satisfaction indices, reenlistment intentions for incumbents assigned to the CONUS were slightly lower than for those overseas. Fifty-seven percent of the overseas respondents felt that they would, or probably would reenlist, while only 47 percent of the respondents in the CONUS favored reenlistment.

TABLE 19  
TASKS WHICH BEST DIFFERENTIATE DAFSC 36151 CONUS AND OVERSEAS PERSONNEL  
(PERCENT MEMBERS PERFORMING)

<u>TASKS</u>	<u>CONUS (N=240)</u>	<u>OVERSEAS (N=95)</u>	<u>DIFFERENCE</u>
G201 BACKFILL BASE TELEPHONE CABLE SYSTEM SPLICING PITS OR CABLE TRENCHES	52	84	-32
G243 TRAVEL TO OR FROM HOST BASE WORK AREAS	30	62	-32
C96 INSPECT CABLE VAULTS, HANDHOLES, OR MANHOLES	39	71	-32
I296 LOCATE CABLE FAULTS USING DELCON CABLE FAULT LOCATORS	40	68	-28
G246 WITHDRAW SCHEME MATERIALS FROM STORAGE	31	58	-27
L370 MELT LEAD OR SOLDER TO PROPER TEMPERATURES	53	79	-26
G215 ERECT TRAFFIC WARNING DEVICES	62	88	-26
M378 ADJUST BASE TELEPHONE CABLE PRESSURE CONTACTORS	17	42	-25
J334 BRIDGE-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	65	90	-25
L375 SEAL JOINTS USING TORCH METHODS	62	87	-25
E171 PREPARE CABLE TRANSFER WORK SHEETS OR CUT SHEETS	17	42	-25
L363 CAST OR PREPARE DISKS OR END PLATES	57	82	-25
H251 CONNECT PLASTIC TIP CABLES TO SPACE SAVER PROTECTORS USING WIRE WRAP GUNS	29	54	-25
L368 INSTALL LEAD WEDGES, DISKS, OR END PLATES	61	85	-24
J340 BUTT-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	58	82	-24

## TRAINING ANALYSIS

### Task Difficulty Data

Assessments of the relative difficulty of each task within the inventory was obtained through ratings provided by 39 experienced 361X1 personnel. These ratings were then standardized so that tasks of average difficulty have a rating of 5.0 and a standard deviation of 1.0. The Task Factor Administration section in the INTRODUCTION provides a more detailed explanation of these ratings. The objective of this procedure is to develop an ordered listing of tasks which would be considered for training. A complete list of tasks in order of their difficulty is included in the Training EXTRACT.

Table 20 provides examples of those tasks which were rated most difficult by these senior 361X1 technicians. As demonstrated, the tasks which were considered to be the most difficult to perform typically involved the supervision or training of managers and team chiefs, the computation of operating costs, and some methods of locating cable faults. Most of these tasks are primarily performed by the more senior incumbents within the AFSC.

Table 21 lists those tasks which were rated average in task difficulty. As illustrated, these tasks cover a variety of functions, including the preparation of a variety of administrative forms, performing equipment inspections, and installing aerial terminal cases or lead sleeves. In addition, some methods of performing cable splices were also rated average.

Table 22 provides a list of those tasks which were rated below average in task difficulty. Overall, most of these tasks are primarily related to the preparation and maintenance of work areas and equipment and usually do not require an extensive knowledge of the career field. Such tasks typically include cleaning manholes and splicing pits or washing and waxing vehicles or trailers and may not require formal technical training.

### Job Difficulty Index (JDI)

The JDI for each of the major job groups that have been identified within the 361X1 career ladder is presented in Table 23. Generally, there seems to be a wide range of variability in the relative degree of difficulty of each of the jobs which are performed. HICS Cable Shop Supervisors, who performed an average of over 202 tasks, had a JDI of 19.4. Conversely, the Base Cable Area Preparation and Maintenance Personnel, who reported performing an average of only 33 tasks, had a JDI of only 3.5.

Overall, those groups having the highest JDI ratings were typically composed of fairly senior personnel who performed a wide variety of supervisory functions. In addition, many of these respondents were also responsible for analyzing and interpreting technical information provided by cable records, cable splicing diagrams, and scheme drawings.

By comparison, those groups having the lowest JDIs were generally small groups composed of very junior respondents who tended to specialize in a limited number of functional areas. For example, the job of both groups having the lowest JDI ratings focused primarily on preparing and maintaining work areas, with very few cable splicing or installation tasks being performed.

TABLE 20  
TASKS RATED AS MOST DIFFICULT BY DAFSC 361X1 PERSONNEL

<u>TASKS</u>	<u>TASK DIFFICULTY</u>	<u>PERCENT MEMBERS PERFORMING (N=596)</u>
B70 SUPERVISE CABLE/ANTENNA INSTALLATION AND MAINTENANCE SUPERINTENDENTS (AFSC 36199)	7.86	2
B72 SUPERVISE TELEPHONE/CABLE AND ANTENNA MAINTENANCE MANAGERS (AFSC 36200)	7.18	3
D153 TRAIN HICS TEAM CHIEFS OR SECTION SUPERVISORS	7.16	5
D142 PERFORM ELECTRONIC AND INSTALLATION (EI) TEAM CHIEF TRAINING	6.99	6
C117 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS, SUCH AS MAINTENANCE REPORTS	6.96	9
A5 COMPUTE COSTS OF MANPOWER, MATERIALS, OR EQUIPMENT	6.93	9
A19 ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR MAINTENANCE OPERATING INSTRUCTIONS (MOI)	6.79	7
I299 LOCATE CABLE FAULTS USING TIME DOMAIN REFLECTOMETERS	6.79	13
D129 DEVELOP COURSE CURRICULA, PLANS OF INSTRUCTION (POI), OR SPECIALTY TRAINING STANDARDS (STS)	6.77	3
D152 TRAIN BASE CABLE TEAM CHIEFS OR SECTION SUPERVISORS	6.75	27
G225 PERFORM LAUNCH FACILITY (LF) PENETRATION OR BACKOUT PROCEDURES	6.68	13
D143 PLAN INSTRUCTOR TRAINING PROGRAMS	6.66	2
C78 EVALUATE BUDGET OR FINANCIAL REQUIREMENTS	6.65	4
C80 EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	6.59	9
B65 RESOLVE TECHNICAL MAINTENANCE PROBLEMS	6.58	26

TABLE 21  
EXAMPLES OF TASKS RATED AVERAGE IN DIFFICULTY BY DAFSC 361X1 PERSONNEL

<u>TASKS</u>	<u>TASK DIFFICULTY</u>	<u>PERCENT MEMBERS PERFORMING (N=596)</u>
A29 PLAN SAFETY PROGRAMS	5.03	11
A14 DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL EQUIPMENT, OR SUPPLIES	5.01	16
J336 BRIDGE-SPlice TELEPHONE CONDUCTORS USING SOLDERED PIGTAILS OR TWISTED METHODS	5.01	17
C105 INSPECT METEOROLOGICAL CABLES	5.01	18
D125 COUNSEL TRAINEES ON TRAINING PROGRESS	5.00	27
E171 PREPARE CABLE TRANSFER WORK SHEETS OR CUT SHEETS	5.00	24
H253 INSTALL AERIAL TERMINAL CASES	5.00	25
I331 TEST ELECTRICAL SURGE ARRESTOR (ESA) BLOCKS FOR RESISTANCE OR VALIDITY	5.00	20
I295 IDENTIFY SPECIAL CIRCUITS, SUCH AS FIRE ALARM OR DATA CIRCUITS	4.99	46
L367 INSTALL LEAD SLEEVES	4.99	63
M401 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMIS) ON AIR DRYER ASSEMBLIES	4.99	35

TABLE 22  
EXAMPLES OF TASKS RATED LOWEST IN DIFFICULTY BY DAFSC 361X1 PERSONNEL

<u>TASKS</u>	<u>TASK DIFFICULTY</u>	<u>PERCENT MEMBERS PERFORMING (N=596)</u>
G204 CLEAN MANHOLES	1.56	56
F200 WASH OR WAX VEHICLES OR TRAILERS	1.72	77
G205 CLEAN SPLICING PITS	1.92	64
G233 REMOVE SNOW FROM WORK AREAS	2.31	32
G245 WITHDRAW MATERIALS FROM BENCH STOCK	2.47	55
G232 REMOVE OR REPLACE MANHOLE COVERS	2.48	60
G216 EXCAVATE SPLICING PITS OR CABLE TRENCHES USING HAND TOOLS	2.58	64
G235 REMOVE WATER FROM SPLICING PITS	2.61	58
G234 REMOVE WATER FROM MANHOLES	2.62	63
G243 TRAVEL TO OR FROM HOST BASE WORK AREAS	2.68	36
G236 SEAL MANHOLE COVERS	2.78	20

TABLE 23  
JOB DIFFICULTY INDICES FOR CAREER LADDER GROUPS

<u>GROUP</u>	<u>ATDPUTS*</u>	<u>NUMBER OF TASKS PERFORMED</u>	<u>JOB DIFFICULTY INDEX</u>
I. SUPERVISION AND MANAGEMENT PERSONNEL (GRP041)	5.2	101	15.9
HICS Cable Shop Supervisors (GRP179)	5.1	202	19.4
Supervisors-Base Cable Section (GRP157)	5.3	124	18.9
EI Team Chiefs (GRP145)	5.0	81	14.1
Quality Control Inspectors (GRP111)	5.1	62	13.5
Superintendents (GRP045)	5.3	47	12.8
II. CABLE MAINTENANCE PERSONNEL (GRP084)	4.4	143	14.6
NCOIC Cable Maintenance (GRP261)	4.7	197	19.3
Senior Cable Splicers (GRP267)	4.6	225	18.9
General Cable Splicers (GRP175)	4.3	116	13.0
Equipment Inspectors (GRP109)	4.2	101	11.5
Junior Base Cable Personnel (GRP178)	4.2	72	9.5
III. SENIOR RESIDENT COURSE INSTRUCTORS (GRP163)	4.7	79	12.8
IV. MISSILE SYSTEMS CABLE MAINTENANCE PERSONNEL (GRP052)	4.7	83	12.5
V. JUNIOR RESIDENT COURSE INSTRUCTORS (GRP064)	4.6	45	9.3
VI. CABLE TESTERS (GRP088)	4.4	52	9.0
VII. CABLE AFFAIRS MONITORS (GRP054)	5.0	21	8.7
VIII. JUNIOR EI PERSONNEL (GRP082)	4.1	54	7.5
IX. BASE CABLE AREA PREPARATION AND MAINTENANCE PERSONNEL (GRP051)	3.7	33	3.9

\*AVERAGE TASK DIFFICULTY PER UNIT TIME SPENT

In view of this, the Cable Splicing Installation and Maintenance career ladder seems to have a very gradual progression in which individuals entering the field initially perform a relatively specialized job. However, as experience levels increase, incumbents take on additional responsibilities and perform a much wider range of increasingly complex tasks. Overall, this progression tends to keep pace with the individual's expanding level of competence, resulting in the fact that job satisfaction indices are characteristically very high for personnel in this specialty.

### Training Emphasis Data

Training emphasis data was collected from 58 experienced career ladder incumbents for each task within the inventory. These ratings are useful in providing information on the training needs of the specialty as perceived by personnel within that AFSC. Overall, these assessments produced an average rating of 3.37 and a standard deviation of 1.92. The Task Factor Administration section of this report provides a more complete description of the data.

Table 24 lists those tasks which have been rated highest in training emphasis by the 361X1 respondents. As illustrated, these tasks primarily involve performing cables tests, locating cable faults, and removing or installing lead sleeves. This typically included such tasks as locating cable faults using multimeters, testing circuits or cable pairs for continuity, and preparing lead sleeves for sealing. In addition, those tasks which received the highest ratings were generally performed by large percentages of first enlistment personnel.

Those tasks which were rated lowest in training emphasis are presented in Table 25. These tasks primarily involve many supervisory and training functions such as scheduling instructor training programs, training Base Cable team chiefs or section supervisors, and evaluating budget or financial requirements. The survey data indicated that, generally, most of these tasks were performed by less than 10 percent of the first term personnel within the 361X1 AFSC.

TABLE 24  
TASKS RATED ABOVE AVERAGE IN TRAINING EMPHASIS BY DAFSC 361X1 PERSONNEL

TASKS	TRAINING EMPHASIS	PERCENT OF 1-48 MONTHS TAFMS MEMBERS PERFORMING (N=256)
I294 IDENTIFY OR TAG CONDUCTORS	7.07	69
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	7.07	63
G240 TEST MANHOLES FOR POISONOUS GASES	6.91	60
I293 ESTABLISH TALKING CIRCUITS	6.86	77
L367 INSTALL LEAD SLEEVES	6.81	67
L366 INSTALL AUXILIARY SLEEVES	6.79	65
I297 LOCATE CABLE FAULTS USING MULTIMETERS	6.78	78
L375 SEAL JOINTS USING TORCH METHODS	6.78	58
L369 MAKE TEMPORARY OR EMERGENCY SPLICE SEALS	6.72	68
I310 MAKE WORKING CABLE SECTION REPLACEMENTS	6.69	56
I296 LOCATE CABLE FAULTS USING DELCON FAULT LOCATORS	6.65	40
L368 INSTALL WEDGES, DISKS, OR END PLATES	6.60	59
I298 LOCATE CABLE FAULTS USING RYCOM CABLE FAULT LOCATORS	6.59	39
I320 REMOVE OR INSTALL AUXILIARY SLEEVES	6.57	61
L372 PREPARE LEAD SLEEVES FOR SEALING	6.53	66
I309 MAKE WET SECTION THROWS	6.50	46
I322 REMOVE OR INSTALL LEAD SLEEVES	6.50	63
I306 LOCATE OR DETERMINE DEPTH OF BURIED CABLES, PIPES, OR OTHER COMPONENTS USING TEST EQUIPMENT	6.45	52
J334 BRIDGE-SPLICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	6.41	62
I308 MAKE CABLE TRANSFERS	6.38	31
I307 LOCATE SPLIT CABLE PAIRS USING TONE SOURCES	6.36	50
I328 TEST CIRCUITS OR CABLE PAIRS FOR CONTINUITY	6.36	64
I315 PERFORM INSULATION RESISTANCE TESTS	6.31	67
M396 LOCATE PRESSURE LEAKS USING PRESSURE GRADIENT METHODS	6.31	45
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	6.29	71

TABLE 25  
TASKS RATED BELOW AVERAGE IN TRAINING EMPHASIS BY DAFSC 361X1 PERSONNEL

TASKS	TRAINING EMPHASIS	PERCENT OF 1-48 MONTHS TAFMS MEMBERS PERFORMING (N=256)
D120 ASSIGN RESIDENT COURSE INSTRUCTORS	.07	1
B 70 SUPERVISE CABLE/ANTENNA INSTALLATION AND MAINTENANCE SUPERINTENDENTS (AFSC 36199)	.09	2
D149 SCHEDULE INSTRUCTOR TRAINING PROGRAMS	.17	1
C 90 EVALUATE UNIT EMERGENCY OR DISASTER PLANS	.19	3
B 43 CONDUCT STAFF MEETINGS	.21	2
D137 EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	.22	3
D129 DEVELOP COURSE CURRICULA, PLANS OF INSTRUCTION (POI), OR SPECIALTY TRAINING STANDARDS (STS)	.24	2
D128 DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	.24	2
B 72 SUPERVISE TELEPHONE/CABLE AND ANTENNA MAINTENANCE MANAGERS (AFSC 36200)	.24	3
C 78 EVALUATE BUDGET OR FINANCIAL REQUIREMENTS	.26	3
B 42 ASSIGN TEAMS BASED UPON LAUNCH FACILITY PENETRATION AND EMERGENCY BACKOUT PROCEDURES	.26	4
D122 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	.28	6
A 32 PREPARE UNIT EMERGENCY OR DISASTER PLANS	.28	3
D152 TRAIN BASE CABLE TEAM CHIEFS OR SECTION SUPERVISORS	.29	2
D143 PLAN INSTRUCTOR TRAINING PROGRAMS	.29	2
D153 TRAIN HICS TEAM CHIEFS OR SECTION SUPERVISORS	.33	5
B 69 SUPERVISE CABLE SPLICING INSTALLATION AND MAINTENANCE SUPERVISORS (ASC 36171)	.34	2
B 61 MAINTAIN CONTINGENCY PLANS	.34	3
D151 SCORE TESTS	.36	4
C 77 EVALUATE ALERT OR EMERGENCY PROCEDURES	.36	4
A 38 SERVE ON AIRMEN CLASSIFICATION BOARDS	.36	3
A 1 ACT AS TRAINING ADVISOR AT STAFF LEVEL	.36	6
D155 WRITE TEST QUESTIONS	.47	2

### Specialty Training Standard (STS)

The 361X1 STS, dated April 1978, was reviewed for the 3-, 5-, and 7-skill level personnel. Subject matter specialists at the Sheppard Technical Training Center assisted in the analysis by matching job inventory tasks to specific STS items. Overall, while this document was fairly accurate in providing general training requirements for significant jobs which are performed by incumbents within the 361X1 AFSC, there were also a small number of items in which the tasks matched to them were performed by only small percentages of personnel. For example, item 4c which dealt with the use of Time Compliance Technical Orders, and item 5a(14) which was related to the preparation of organizational and functional charts, may both warrant a close review by appropriate subject matter specialists in order to determine if continued listing in the STS is necessary. A complete listing of the task data organized in the form of the STS was developed and is included in the EXTRACT of computer products provided to the training manager. This listing (FCTPRT) is provided to facilitate the review of the STS by training center personnel.

### Plan of Instruction (POI J3ABR36131-002)

The current Plan of Instruction for course J3ABR36131-002 was also examined with respect to the percentages of members performing tasks linked to criterion objectives as well as task difficulty data. Results indicated that generally the POI was consistent with the survey data. School personnel should closely examine the data provided, however, in order to determine if minor modifications in the course may be necessary.

#### WRITE-IN COMMENTS

In addition to responding to the survey questions, incumbents were also encouraged to write in any additional information which may be relevant to the analysis of the 361X1 AFSC. This included such items as problems which they feel may presently exist in the career ladder, or tasks and equipment which individual members believe should be added to the job inventory. As a result, many comments covering a wide range of career field related subjects were collected.

A number of respondents expressed the general perception that the recent merger of the 361X1 and the 361X2 career ladders sometimes creates difficulties in terms of personnel utilization. According to these incumbents, when members who previously worked in one duty area are reassigned to another area, they are often unfamiliar with much of the equipment and many of the procedures which are part of the new job, even after completion of additional technical school training. Consequently, most of these respondents feel that a more extensive OJT system needs to be established in order to help compensate for this lack of specific job experience.

Finally, the majority of the other comments which were received consisted of a number of unique tasks that were performed and job titles which were held by some incumbents that were not listed in the job inventory.

## COMPARISON TO PREVIOUS SURVEY

The results of this survey were compared to those of the previous Occupational Survey Report AFPT 90-361-203, 204, dated June 1977. Although the earlier study was written prior to the recent merger of the 361X1 and 361X2 AFSCs, both specialties were included in the report. Consequently, the identified career ladder structure was very similar to the present survey, indicating that the types of jobs which exist have basically remained unchanged. Even though the terminology has varied slightly between time periods, the two reports have found that the specialty is composed of four major job groupings. These are resident technical school instructors, supervisory personnel, missile cable splicers, and a group of general cable splicers consisting of both base cable and EI personnel. In terms of job satisfaction, while all other indices have remained essentially the same, the current data indicates that the perceived utilization of training has risen sharply over the past four years.

Finally, while the majority of the missile cable splicers was assigned to SAC before the merger, currently this function has now been transferred to AFCC. As a result, this command accounts for over 92 percent of the incumbents in the Cable Splicing Installation and Maintenance career ladder (see Table 1).

## IMPLICATIONS

Currently, the 361X1 career ladder includes three major functions. As previously mentioned, these are distinguished as the base cable, EI, and HICS duty areas. However, while all three types of jobs share a common core of tasks and equipment, resulting in the merger of the 361X1 and 361X2 AFSCs, personnel working with missile cable do perform a number of tasks and use some types of equipment which are unique to missile systems only. Also, incumbents working in Base Cable and EI duty areas usually install a wider variety of splice cases and use many pieces of equipment that HICS personnel do not normally use. As a consequence, difficulties are sometimes created when individuals are reassigned from this area to another, or vice versa. Although these incumbents can receive additional technical school training before arriving at their new duty locations, write-in comments from the field and discussions with career ladder personnel seems to indicate that these newly reassigned individuals may need more extensive additional training and evaluation programs in order to overcome their general lack of job experience.

Thus, the merger of the two specialties into one AFSC has not substantially changed the jobs being performed in the field. Personnel working in the HICS duty area still remain a fairly separate and distinct group while the job of individuals working in the EI and Base Cable areas are very similar. This merger, has resulted in some cross flow between the missile site and other cable splicers and some problems have been encountered in terms of the learning needed to perform the new job.

In general, members of this AFSC appear to be interested in their jobs and feel their talents and training are well utilized. Career ladder documents (AFR 39-1, STS) are basically consistent with survey results.

## APPENDIX A

**REPRESENTATIVE TASKS PERFORMED BY CABLE MAINTENANCE PERSONNEL  
(GRP084, N=331)**

TASKS	PERCENT MEMBERS PERFORMING
I293 ESTABLISH TALKING CIRCUITS	99
I294 IDENTIFY OR TAG CONDUCTORS	98
L366 INSTALL AUXILIARY SLEEVES	97
L365 FLASH TEST SPLICES OR CLOSURES	97
L372 PREPARE LEAD SLEEVES FOR SEALING	97
G234 REMOVE WATER FROM MANHOLES	96
L367 INSTALL LEAD SLEEVES	96
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	96
F200 WASH OR WAX VEHICLES OR TRAILERS	95
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	95
I322 REMOVE OR INSTALL LEAD SLEEVES	95
J334 BRIDGE-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	95
H250 CLEAN CAP CONDUCTORS	95
G211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES	94
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	94
H286 MARK OR TAG CABLES, TERMINALS, OR SPLICES	93
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	93
I320 REMOVE OR INSTALL AUXILIARY SLEEVES	93
L368 INSTALL LEAD WEDGES, DISKS, OR END PLATES	93
L364 DRY SPLICES USING DESICCANTS	93
L373 SEAL CABLE ENDS	93
G232 REMOVE OR REPLACE MANHOLE COVERS	92
L375 SEAL JOINTS USING TORCH METHODS	92
G240 TEST MANHOLES FOR POISONOUS GASES	92
H247 BEND OR ARRANGE BURIED CABLES FOR SPLICING	92

**REPRESENTATIVE TASKS PERFORMED BY JUNIOR BASE CABLE PERSONNEL  
(GRP178, N=9)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
L372 PREPARE LEAD SLEEVES FOR SEALING	100
L365 FLASH TEST SPLICES FOR CLOSURES	100
G216 EXCAVATE SPLICING PITS OR CABLE TRENCHES USING HAND TOOLS	100
L322 REMOVE OR INSTALL LEAD SLEEVES	100
L367 INSTALL LEAD SLEEVES	100
L375 SEAL JOINTS USING TORCH METHODS	100
L366 INSTALL AUXILIARY SLEEVES	100
I294 IDENTIFY OR TAG CONDUCTORS	100
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	100
F200 WASH OR WAX VEHICLES OR TRAILERS	100
I293 ESTABLISH TALKING CIRCUITS	100
J334 BRIDGE-SPLICER TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	100
G223 OPERATE SPLICER TRUCKS	89
I320 REMOVE OR INSTALL AUXILIARY SLEEVES	89
M385 CHARGE CABLE SYSTEMS WITH NITROGEN OR DRY AIR	89
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	89
H250 CLEAN CAP CONDUCTORS	89
F191 PERFORM OPERATOR MAINTENANCE ON GENERAL PURPOSE VEHICLES	89
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	89
I297 LOCATE CABLE FAULTS USING MULTIMETERS	89
L373 SEAL CABLE ENDS	89
L364 DRY SPLICES USING DESICCANTS	89
H286 MARK OR TAG CABLES, TERMINALS, OR SPLICES	89
L376 SEAL SPLICES WITH EPOXY RESIN COMPOUNDS	78
L369 MAKE TEMPORARY OR EMERGENCY SPLICE SEALS	78

**REPRESENTATIVE TASKS PERFORMED BY GENERAL CABLE SPLICERS**  
**(GRP175, N=202)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
L366 INSTALL AUXILIARY SLEEVES	99
L367 INSTALL LEAD SLEEVES	99
L365 FLASH TEST SPLICES OR CLOSURES	99
I294 IDENTIFY OR TAG CONDUCTORS	99
L372 PREPARE LEAD SLEEVES FOR SEALING	99
I293 ESTABLISH TALKING CIRCUITS	99
G234 REMOVE WATER FROM MANHOLES	97
F200 WASH OR WAX VEHICLES OR TRAILERS	97
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	97
L364 DRY SPLICES USING DESICCANTS	96
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	95
L368 INSTALL LEAD WEDGES, DISKS, OR END PLATES	95
L373 SEAL CABLE ENDS	95
H250 CLEAN CAP CONDUCTORS	95
I322 REMOVE OR INSTALL LEAD SLEEVES	95
G232 REMOVE OR REPLACE MANHOLE COVERS	94
J334 BRIDGE-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	94
G228 PLACE OR OPERATE WATER PUMPS	94
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	94
G211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	94
I320 REMOVE OR INSTALL AUXILIARY SLEEVES	93
H286 MARK OR TAG CABLES, TERMINALS, OR SPLICES	93
G240 TEST MANHOLES FOR POISONOUS GASES	93
L374 SEAL CABLES USING TAPE WRAPPED METHODS	93
H247 BEND OR ARRANGE BURIED CABLES FOR SPLICING	93

REPRESENTATIVE TASKS PERFORMED BY SENIOR CABLE SPLICERS  
(GRP267, N=69)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
I293 ESTABLISH TALKING CIRCUITS	100
I367 INSTALL LEAD SLEEVES	100
I365 FLASH TEST SPLICES OR CLOSURES	100
I294 IDENTIFY OR TAG CONDUCTORS	100
G240 TEST MANHOLES FOR POISONOUS GASES	100
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	100
L366 INSTALL AUXILIARY SLEEVES	100
H286 MARK OR TAG CABLES, TERMINALS, OR SPLICES	100
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	100
L368 INSTALL LEAD WEDGES, DISKS, OR END PLATES	100
L369 MAKE TEMPORARY OR EMERGENCY SPLICE SEALS	100
H248 BEND OR RACK UNDERGROUND CABLES FOR SPLICING	100
H247 BEND OR ARRANGE BURIED CABLES FOR SPLICING	100
H250 CLEAN CAP CONDUCTORS	100
J334 BRIDGE-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	99
I322 REMOVE OR INSTALL LEAD SLEEVES	99
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	99
L375 SEAL JOINTS USING TORCH METHODS	99
I320 REMOVE OR INSTALL AUXILIARY SLEEVES	99
J340 BUTT-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	99
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	99
L372 PREPARE LEAD SLEEVES FOR SEALING	99
G211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	99
G234 REMOVE WATER FROM MANHOLES	99
L363 CAST OR PREPARE DISKS OR END PLATES	99

**REPRESENTATIVE TASKS PERFORMED BY EQUIPMENT INSPECTORS**  
**(GRP109, N=5)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
C114 INSPECT WORK AREAS FOR HAZARDOUS WORKING CONDITIONS	100
E170 PERFORM VEHICLE OPERATOR INSPECTIONS USING FORMS SUCH AS AFTO FORM 373 OR AFTO FORM 374	100
G223 OPERATE SPLICER TRUCKS	100
G232 REMOVE OR REPLACE MANHOLE COVERS	100
C96 INSPECT CABLE VAULTS, HANDHOLES, OR MANHOLES	100
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	100
G240 TEST MANHOLES FOR POISONOUS GASES	100
G234 REMOVE WATER FROM MANHOLES	100
G228 PLACE OR OPERATE WATER PUMPS	100
F191 PERFORM OPERATOR MAINTENANCE ON GENERAL PURPOSE VEHICLES	100
G201 BACKFILL BASE TELEPHONE CABLE SYSTEM SPLICING PITS OR CABLE TRENCHES	100
F200 WASH OR WAX VEHICLES OR TRAILERS	100
G216 EXCAVATE SPLICING PITS OR CABLE TRENCHES USING HAND TOOLS	100
H286 MARK OR TAG CABLES, TERMINALS, OR SPLICES	100
G211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	100
I320 REMOVE OR INSTALL AUXILIARY SLEEVES	100
I322 REMOVE OR INSTALL LEAD SLEEVES	100
L366 INSTALL AUXILIARY SLEEVES	100
C113 INSPECT VEHICLES OR SPECIAL PURPOSE EQUIPMENT	80
C112 INSPECT TEST EQUIPMENT	80
C99 INSPECT HAND OR SPECIAL PURPOSE TOOLS	80
C108 INSPECT SPLICING MATERIALS	80
G204 CLEAN MANHOLES	80
H250 CLEAN CAP CONDUCTORS	80

**REPRESENTATIVE TASKS PERFORMED BY NCOICs CABLE MAINTENANCE  
(GRP261, N=20)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	100
C96 INSPECT CABLE VAULTS, HANHOLES, OR MANHOLES	100
C94 INSPECT BURIED CABLE INSTALLATIONS FOR COMPLIANCE WITH TECHNICAL DIRECTIVES OR SPECIFICATIONS	100
C102 INSPECT IN-PROGRESS WORK	100
G242 TRAVEL TO OR FROM BASE WORK AREAS	100
G234 REMOVE WATER FROM MANHOLES	100
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	100
G240 TEST MANHOLES FOR POISONOUS GASES	100
J334 BRIDGE-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	100
L375 SEAL JOINTS USING TORCH METHODS	100
H286 MARK OR TAG CABLES, TERMINALS, OR SPLICES	100
I293 ESTABLISH TALKING CIRCUITS	100
I297 LOCATE CABLE FAULTS USING MULTIMETERS	100
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	100
I294 IDENTIFY OR TAG CONDUCTORS	100
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	100
G245 WITHDRAW MATERIALS FROM BENCH STOCK	100
A31 PLAN WORK ASSIGNMENTS	95
E168 MAKE ENTRIES ON PLANT-IN-PLACE RECORDS	95
B60 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	95
G223 OPERATE SPLICER TRUCKS	95
C112 INSPECT TEST EQUIPMENT	95
E170 PERFORM VEHICLE OPERATOR INSPECTIONS USING FORMS SUCH AS AFTO FORM 373 OR AFTO FORM 374	95
L365 FLASH TEST SPLICES OR CLOSURES	95
D121 CONDUCT OJT	95

**REPRESENTATIVE TASKS PERFORMED BY SENIOR RESIDENT COURSE INSTRUCTORS  
(GRP163, N=6)**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING</b>
D122 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	100
D137 EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	100
G217 INSPECT CLIMBING EQUIPMENT, POLES OR AREAS PRIOR TO ASCENDING POLES	100
D139 MAINTAIN TRAINING AIDS, SPACE, OR EQUIPMENT	100
L367 INSTALL LEAD SLEEVES	100
D151 SCORE TESTS	100
I297 LOCATE CABLE FAULTS USING MULTIMETERS	100
D118 ADMINISTER TESTS	100
I322 REMOVE OR INSTALL LEAD SLEEVES	100
I293 ESTABLISH TALKING CIRCUITS	100
I294 IDENTIFY OR TAG CONDUCTORS	100
K359 INSTALL OR REPLACE 20 or 21 SERIES SPLICE CASES	100
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	100
I315 PERFORM INSULATION RESISTANCE TESTS	100
L365 FLASH TEST SPLICES OR CLOSURES	100
I309 MAKE WET SECTION THROWS	100
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	100
L364 DRY SPLICES USING DESICCANTS	100
C114 INSPECT WORK AREAS FOR HAZARDOUS WORKING CONDITIONS	83
C112 INSPECT TEST EQUIPMENT	83
C108 INSPECT SPLICING MATERIALS	83
C99 INSPECT HAND OR SPECIAL PURPOSE TOOLS	83
G231 RAISE OR LOWER CABLE SPLICING PLATFORMS	83
F190 MAINTAIN TOOLS OR EQUIPMENT	83
D125 COUNSEL TRAINEES ON TRAINING PROGRESS	83

REPRESENTATIVE TASKS PERFORMED BY CABLE TESTERS  
(GRP88, N=5)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
L367 INSTALL LEAD SLEEVES	100
L372 PREPARE LEAD SLEEVES FOR SEALING	100
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	100
L375 SEAL JOINTS USING TORCH METHODS	100
L373 SEAL CABLE ENDS	100
L364 DRY SPLICES USING DESICCANTS	100
I322 REMOVE OR INSTALL LEAD SLEEVES	80
L369 MAKE TEMPORARY OR EMERGENCY SPLICE SEALS	80
J334 BRIDGE-SPLICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	80
I329 TEST CIRCUITS OR CABLE PAIRS FOR RESISTANCE	80
I309 MAKE WET SECTION THROWS	80
F200 WASH OR WAX VEHICLES OR TRAILERS	80
I320 REMOVE OR INSTALL AUXILIARY SLEEVES	80
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	80
L365 FLASH TEST SPLICES OR CLOSURES	80
L366 INSTALL AUXILIARY SLEEVES	80
I315 PERFORM INSULATION RESISTANCE TESTS	80
I296 LOCATE CABLE FAULTS USING DELCON CABLE FAULT LOCATORS	60
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	60
L376 SEAL SPLICES WITH EPOXY RESIN COMPOUNDS	60
M408 TAKE PRESSURE READINGS USING PRESSURE TESTING GAUGES	60
G223 OPERATE SPlicer TRUCKS	60
I332 TREAT CABLES OR OTHER MATERIALS FOR CORROSION	60
I330 TEST CIRCUITS OR CABLE PAIRS FOR VOLTAGE	60
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	60

REPRESENTATIVE TASKS PERFORMED BY JUNIOR EI PERSONNEL  
(GRP082, N=22)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
L367 INSTALL LEAD SLEEVES	95
I293 ESTABLISH TALKING CIRCUITS	86
I322 REMOVE OR INSTALL LEAD SLEEVES	86
L365 FLASH TEST SPLICES OR CLOSURES	86
L366 INSTALL AUXILIARY SLEEVES	86
J334 BRIDGE-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	86
L372 PREPARE LEAD SLEEVES FOR SEALING	86
G232 REMOVE OR REPLACE MANHOLE COVERS	86
I320 REMOVE OR INSTALL AUXILIARY SLEEVES	82
G204 CLEAN MANHOLES	82
G234 REMOVE WATER FROM MANHOLES	82
G223 OPERATE SPlicer TRUCKS	77
F200 WASH OR WAX VEHICLES OR TRAILERS	77
L369 MAKE TEMPORARY OR EMERGENCY SPLICE SEALS	77
H250 CLEAN CAP CONDUCTORS	77
G211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	77
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	77
J340 BUTT-SPICE TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	77
L364 DRY SPLICES USING DESICCANTS	73
L368 INSTALL LEAD WEDGES, DISKS, OR END PLATES	73
I294 IDENTIFY OR TAG CONDUCTORS	68
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	68
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	68
L363 CAST OR PREPARE DISKS OR END PLATES	68
G240 TEST MANHOLES FOR POISONOUS GASES	68

REPRESENTATIVE TASKS PERFORMED BY JUNIOR RESIDENT COURSE INSTRUCTORS  
(GRP064, N=6)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
D118 ADMINISTER TEST	100
D122 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	83
L365 FLASH TEST SPLICES OR CLOSURES	83
L367 INSTALL LEAD SLEEVES	83
L375 SEAL JOINTS USING TORCH METHODS	83
D151 SCORE TESTS	83
L377 WRAP COMPLETED SPLICES WITH MUSLIN OR PLASTIC	83
L372 PREPARE LEAD SLEEVES FOR SEALING	83
L373 SEAL CABLE ENDS	83
J334 BRIDGE-SPlice TELEPHONE CONDUCTORS USING MECHANICAL CONNECTORS	67
I329 TEST CIRCUITS OR CABLE PAIRS FOR RESISTANCE	67
L366 INSTALL AUXILIARY SLEEVES	67
L374 SEAL CABLES USING TAPE WRAPPED METHODS	67
I292 DETECT CABLE FAULTS USING HEADSETS AND BATTERIES	67
L368 INSTALL LEAD WEDGES, DISKS, OR END PLATES	67
L370 MELT LEAD OR SOLDER TO PROPER TEMPERATURES	67
I315 PERFORM INSULATION RESISTANCE TESTS	67
I293 ESTABLISH TALKING CIRCUITS	67
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	67
G240 TEST MANHOLES FOR POISONOUS GASES	67
H250 CLEAN CAP CONDUCTORS	67
K360 INSTALL OR REPLACE 9A, 10A, 11A, OR 12A SPLICE CASES	50
I330 TEST CIRCUITS OR CABLE PAIRS FOR VOLTAGE	50
J335 BRIDGE-SPlice TELEPHONE CONDUCTORS USING NONSOLDERED PIGTAILS OR TWISTED METHODS	50
K359 INSTALL OR REPLACE 20 OR 21 SERIES SPLICE CASES	50

REPRESENTATIVE TASKS PERFORMED BY MISSILE SYSTEMS CABLE MAINTENANCE PERSONNEL  
(GRP052, N=92)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
M380 ADJUST HICS PRESSURE CONTACTORS	99
K351 ASSEMBLE ATI SPLICE CASES	95
M390 INSTALL OR REMOVE HICS PRESSURE CONTACTOR ASSEMBLIES	93
J333 BRIDGE-SPLICE HICS CABLE USING MECHANICAL CONNECTORS	93
G244 TRAVEL TO OR FROM MISSILE CABLE WORK AREAS	91
J347 STRAIGHT-SPLICE HICS CABLE USING MECHANICAL CONNECTORS	91
M404 REPAIR ATI PRESSURE COMPONENT ASSEMBLIES	90
I331 TEST ELECTRICAL SURGE ARRESTOR (ESA) BLOCKS FOR RESISTANCE OR VALIDITY	87
M391 INSTALL OR REMOVE HICS PRESSURE CONTACTORS	85
M408 TAKE PRESSURE READINGS USING PRESSURE TESTING GAUGES	84
H276 INSTALL PRESSURE CONTACTORS	83
K352 FABRICATE LINK CABLES	83
F197 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON HICS CABLE YARDS	83
F200 WASH OR WAX VEHICLES OR TRAILERS	80
M399 PERFORM OPERATIONAL CHECKS ON CABLE AIR-DRYER ASSEMBLIES	80
M403 REMOVE OR REPLACE AIR-DRYER COMPONENTS OR ASSEMBLIES	80
M385 CHARGE CABLE SYSTEMS WITH NITROGEN OR DRY AIR	79
M401 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON AIR-DRYER ASSEMBLIES	77
I300 LOCATE CABLE FAULTS USING WHEATSTONE BRIDGES	77
H258 INSTALL CABLE ROUTE SIGNS, POLE MARKERS, OR IDENTIFI- CATION PLATES	76
M410 TEST PRESSURE CONTACTORS	76
M400 PERFORM OPERATIONAL CHECKS ON PRESSURE CONTACTORS	76
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	74
I332 TREAT CABLES OR OTHER MATERIALS FOR CORROSION	73
M379 ADJUST CONTROLS ON CABLE AIR-DRYERS	72

REPRESENTATIVE TASKS PERFORMED BY HICS CABLE SPLICERS  
(GRP080, N=81)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
M380 ADJUST HICS PRESSURE CONTACTORS	100
M390 INSTALL OR REMOVE HICS PRESSURE CONTACTOR ASSEMBLIES	96
G244 TRAVEL TO OR FROM MISSILE CABLE WORK AREAS	95
K351 ASSEMBLE ATI SPLICE CASES	95
J347 STRAIGHT-SPlice HICS CABLE USING MECHANICAL CONNECTORS	95
J333 BRIDGE-SPlice HICS CABLE USING MECHANICAL CONNECTORS	95
I331 TEST ELECTRICAL SURGE ARRESTOR (ESA) BLOCKS FOR RESISTANCE OR VALIDITY	93
M404 REPAIR ATI PRESSURE COMPONENT ASSEMBLIES	91
M391 INSTALL OR REMOVE HICS PRESSURE CONTACTORS	90
M408 TAKE PRESSURE READINGS USING PRESSURE TESTING GAUGES	89
H276 INSTALL PRESSURE CONTACTORS	88
M385 CHARGE CABLE SYSTEMS WITH NITROGEN OR DRY AIR	88
K352 FABRICATE LINK CABLES	86
F197 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON HICS CABLE YARDS	86
M399 PERFORM OPERATIONAL CHECKS ON CABLE AIR-DRYER ASSEMBLIES	85
M403 REMOVE OR REPLACE AIR-DRYER COMPONENTS OR ASSEMBLIES	84
I332 TREAT CABLES OR OTHER MATERIALS FOR CORROSION	83
M400 PERFORM OPERATIONAL CHECKS ON PRESSURE CONTACTORS	83
M401 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON AIR- DRYER ASSEMBLIES	81
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	80
H258 INSTALL CABLE ROUTE SIGNS, POLE MARKERS, OR IDENTIFICATION PLATES	80
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	79
M379 ADJUST CONTROLS ON CABLE AIR DRYERS	77
K355 FORM OR SECURE CABLES FOR ATI CASE SPLICING	73
L365 FLASH TEST SPLICES OR CLOSURES	72

**REPRESENTATIVE TASKS PERFORMED BY CABLE PRESSURIZATION PERSONNEL  
(GRP068, N=5)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
M380 ADJUST HICS PRESSURE CONTACTORS	100
K351 ASSEMBLE ATI SPLICE CASES	100
M404 REPAIR ATI PRESSURE COMPONENT ASSEMBLIES	100
J347 STRAIGHT-SPLICE HICS CABLE USING MECHANICAL CONNECTORS	100
K352 FABRICATE LINK CABLES	100
J333 BRIDGE-SPLICE HICS CABLE USING MECHANICAL CONNECTORS	100
K355 FORM OR SECURE CABLES FOR ATI CASE SPLICING	80
K353 FABRICATE MISSILE CABLES	80
M401 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON AIR DRYER ASSEMBLIES	60
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	60
M396 LOCATE PRESSURE LEAKS USING PRESSURE GRADIENT METHODS	60
M379 ADJUST CONTROLS ON CABLE AIR DRYERS	60
F197 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON HICS CABLE YARDS	60
M410 TEST PRESSURE CONTACTORS	60
I329 TEST CIRCUITS OR CABLE PAIRS FOR RESISTANCE	60
M402 PURGE CABLES WITH NITROGEN OR DRY AIR	60
C97 INSPECT ELECTRICAL SURGE ARRESTOR (ESA) ROOMS	60
K356 INSTALL BUILDOUT CAPACITORS OR LOAD COILS IN MISSILE CABLE SPLICE CASES	60
I331 TEST ELECTRICAL SURGE ARRESTOR (ESA) BLOCKS FOR RESISTANCE OR VALIDITY	60
M390 INSTALL OR REMOVE HICS PRESSURE CONTACTOR ASSEMBLIES	60
K354 FABRICATE OR INSTALL SUPPORT PLANKS FOR SPLICING MISSILE CABLES	60

**REPRESENTATIVE TASKS PERFORMED BY HICS AREA PREPARATION AND MAINTENANCE PERSONNEL  
(GRP061, N=6)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
G244 TRAVEL TO OR FROM MISSILE CABLE WORK AREAS	100
F200 WASH OR WAX VEHICLES OR TRAILERS	83
G216 EXCAVATE SPLICING PITS OR CABLE TRENCHES USING HAND TOOLS	83
M380 ADJUST HICS PRESSURE CONTACTORS	83
G222 OPERATE BACKHOES	83
M390 INSTALL OR REMOVE HICS PRESSURE CONTACTOR ASSEMBLIES	83
K351 ASSEMBLE ATI SPLICE CASES	83
C113 INSPECT VEHICLES OR SPECIAL PURPOSE EQUIPMENT	67
G221 LOAD OR REPLENISH SPLICING MATERIALS PRIOR TO DISPATCH OF SPlicer TRUCKS	67
G223 OPERATE SPlicer TRUCKS	67
G202 BACKFILL HICS SPLICING PITS OR CABLE TRENCHES	67
M404 REPAIR ATI PRESSURE COMPONENT ASSEMBLIES	67
J333 BRIDGE-SPLICE HICS CABLE USING MECHANICAL CONNECTORS	67
M403 REMOVE OR REPLACE AIR-DRYER COMPONENTS OR ASSEMBLIES	67
E170 PERFORM VEHICLE OPERATOR INSPECTIONS USING FORMS SUCH AS AFTO FORM 373 OR AFTO FORM 374	50
M397 LOCATE PRESSURE LEAKS WITH SOLUTION TESTS	50
F191 PERFORM OPERATOR MAINTENANCE ON GENERAL PURPOSE VEHICLES	50
G241 TEST PRESSURE REGULATORS FOR PRESSURE CREEPAGE	50
I300 LOCATE CABLE FAULTS USING WHEATSTONE BRIDGES	50
M399 PERFORM OPERATIONAL CHECKS ON CABLE AIR-DRYER ASSEMBLIES	50
M408 TAKE PRESSURE READINGS USING PRESSURE TESTING GAUGES	50
M391 INSTALL OR REMOVE HICS PRESSURE CONTACTORS	50
H276 INSTALL PRESSURE CONTACTORS	50
H258 INSTALL CABLE ROUTE SIGNS, POLE MARKERS, OR IDENTIFICATION PLATES	50
G205 CLEAN SPLICING PITS	50

**REPRESENTATIVE TASKS PERFORMED BY BASE CABLE AREA  
PREPARATION AND MAINTENANCE PERSONNEL  
(GRP051, N=7)**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING</b>
G232 REMOVE OR REPLACE MANHOLE COVERS	100
G223 OPERATE SPLICER TRUCKS	100
G242 TRAVEL TO OR FROM BASE WORK AREAS	86
G211 ERECT BARRIERS OR MANHOLE GUARDS AROUND OPEN TRENCHES OR PITS	86
G215 ERECT TRAFFIC WARNING DEVICES	86
G239 TEST MANHOLES FOR COMBUSTIBLE GASES	86
G201 BACKFILL BASE TELEPHONE CABLE SYSTEM SPLICING PITS	86
G234 REMOVE WATER FROM MANHOLES	86
G240 TEST MANHOLES FOR POISONOUS GASES	71
G228 PLACE OR OPERATE WATER PUMPS	71
I293 ESTABLISH TALKING CIRCUITS	57
F200 WASH OR WAX VEHICLES OR TRAILERS	57
I329 TEST CIRCUITS OR CABLE PAIRS FOR RESISTANCE	57

**REPRESENTATIVE TASKS PERFORMED BY SUPERVISION AND MANAGEMENT PERSONNEL  
(GRP041, N=44)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
C113 INSPECT VEHICLES OR SPECIAL PURPOSE EQUIPMENT	82
C114 INSPECT WORK AREAS FOR HAZARDOUS WORKING CONDITIONS	80
E159 INTERPRET CABLE RECORDS OR CABLE SPLICING DIAGRAMS	80
E170 PERFORM VEHICLE OPERATOR INSPECTIONS USING FORMS SUCH AS AFTO FORM 373 OR AFTO FORM 374	77
C102 INSPECT IN-PROGRESS WORK	75
B46 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	75
B65 RESOLVE TECHNICAL MAINTENANCE PROBLEMS	75
C112 INSPECT TEST EQUIPMENT	75
B68 SUPERVISE CABLE SPLICING INSTALLATION AND MAINTAINING SPECIALISTS (AFSC 36151)	73
A31 PLAN WORK ASSIGNMENTS	73
A15 DETERMINE WORK PRIORITIES	73
C94 INSPECT BURIED CABLE INSTALLATIONS FOR COMPLIANCE WITH TECHNICAL DIRECTIVES OR SPECIFICATIONS	70
A35 SCHEDULE WORK ASSIGNMENTS	70
B64 RESOLVE TECHNICAL INSTALLATION PROBLEMS	70
C84 EVALUATE PERFORMANCE OF MAINTENANCE TEAMS	68
E161 INTERPRET CIRS OR PLANT-IN-PLACE RECORDS	68
C99 INSPECT HAND OR SPECIAL PURPOSE TOOLS	68
D125 COUNSEL TRAINEES ON TRAINING PROGRESS	68
D144 ORIENT NEWLY ASSIGNED PERSONNEL	68
C79 EVALUATE COMPLIANCE WITH WORK STANDARDS	66
E169 PARTICIPATE IN STAFF MEETINGS	66
C87 EVALUATE SCHEME DRAWINGS OR SPECIFICATIONS	64
C103 INSPECT INSTALLED CABLE PRESSURE SYSTEM EQUIPMENT OR COMPONENTS	64
A28 PLAN OR SCHEDULE INSPECTIONS	64
D135 EVALUATE OJT TRAINEES	64

**REPRESENTATIVE TASKS PERFORMED BY SUPERINTENDENTS**  
**(GRP045, N=7)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
A35 SCHEDULE WORK ASSIGNMENTS	100
A34 SCHEDULE LEAVES OR PASSES	100
B69 SUPERVISE CABLE SPLICING INSTALLATION AND MAINTENANCE SUPERVISORS (AFSC 36171)	86
A31 PLAN WORK ASSIGNMENTS	86
B71 SUPERVISE CIVILIAN PERSONNEL	86
A15 DETERMINE WORK PRIORITIES	86
D119 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	86
D141 ORIENT NEWLY-ASSIGNED PERSONNEL	86
A4 ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	86
A3 ASSIGN PERSONNEL TO DUTY POSITIONS	86
E169 PARTICIPATE IN STAFF MEETINGS	71
B68 SUPERVISE CABLE SPLICING INSTALLATION AND MAINTENANCE SPECIALISTS (AFSC 36151)	71
B46 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	71
B67 SUPERVISE APPRENTICE CABLE SPLICING INSTALLATION AND MAINTENANCE SPECIALISTS (AFSC 36131)	71
D125 COUNSEL TRAINEES ON TRAINING PROGRESS	71
D140 MAINTAIN TRAINING RECORDS, CHART'S, OR GRAPHS	71
D131 DIRECT OR IMPLEMENT OJT PROGRAMS	57
D148 REVIEW JPGS	57
A 36 SELECT PERSONNEL FOR TEMPORARY DUTY (TDY)	57
D127 DETERMINE OJT TRAINING REQUIREMENTS	57
D145 PREPARE JOB PROFICIENCY GUIDES (JPGS)	57
B58 INITIATE USAF HAZARD REPORT FORMS (AF FORM 457)	57
A27 PLAN OR PREPARE BRIEFINGS	57
D126 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	57

REPRESENTATIVE TASKS PERFORMED BY ELECTRONICS INSTALLATION TEAM CHIEFS  
(GRP145, N=5)

<u>TASKS</u>	<u>PERCENT MEME'S PERFORMING</u>
A10 COORDINATE PRIOR TO INSTALLATION OF CABLE, ANTENNA, OR INSIDE PLANT SCHEMES WITH USING ORGANIZATION	100
A24 OBTAIN RIGHT-OF-WAY, ROAD PERMITS, DIGGING PERMITS, OR OTHER CLEARANCES	100
B68 SUPERVISE CABLE-SPlicing INSTALLATION AND MAINTENANCE SPECIALISTS (AFSC 36151)	100
E170 PERFORM VEHICLE OPERATOR INSPECTIONS USING FORMS SUCH AS AFTO FORM 373 OR AFTO FORM 374	100
C102 INSPECT IN-PROGRESS WORK	100
E157 ANNOTATE AS-BUILT OR AS-INSTALLED DRAWINGS	100
C114 INSPECT WORK AREAS FOR HAZARDOUS WORKING CONDITIONS	100
E160 INTERPRET CABLE TRANSFER WORK SHEETS OR CUT SHEETS	100
E159 INTERPRET CABLE RECORDS OR CABLE SPlicing DIAGRAMS	100
B64 RESOLVE TECHNICAL INSTALLATION PROBLEMS	100
C109 INSPECT SPlicing PITS	100
C112 INSPECT TEST EQUIPMENT	100
C113 INSPECT VEHICLES OR SPECIAL PURPOSE EQUIPMENT	100
C94 INSPECT BURIED CABLE INSTALLATIONS FOR COMPLETE COMPLIANCE WITH TECHNICAL DIRECTIVES OR SPECIFICATIONS	100
C96 INSPECT CABLE VAULTS, HANDHOLES, OR MANHOLES	100
C98 INSPECT GROUNDS OR BONDING DEVICES	100
B45 COORDINATE CONTROL OR TURN-IN EXCESS SCHEME MATERIALS WITH RESPONSIBLE ACTIVITIES	100
B46 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	80
A33 REVIEW LISTS OF MATERIALS, SCHEME DRAWINGS, OR SCHEME SPECIFICATIONS FOR ACCURACY	80
B63 REQUEST ENGINEERING CHANGE REQUESTS/AUTHORIZATIONS (ECR/A)	80
A31 PLAN WORK ASSIGNMENTS	80
E171 PREPARE CABLE TRANSFER WORK SHEETS OR CUT SHEETS	80
E161 INTERPRET CIRS OR PLANT-IN-PLACE RECORDS	80
E168 MAKE ENTRIES ON PLANT-IN-PLACE RECORDS	80
A15 DETERMINE WORK PRIORITIES	80

**REPRESENTATIVE TASKS PERFORMED BY QUALITY CONTROL INSPECTORS  
(GRP111, N=7)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
C102 INSPECT IN-PROGRESS WORK	100
C93 INSPECT AERIAL, BURIED, OR UNDERGROUND CABLE SPLICES OTHER THAN HICS	100
C94 INSPECT BURIED CABLE INSTALLATIONS FOR COMPLIANCE WITH TECHNICAL DIRECTIVES OR SPECIFICATIONS	100
C98 INSPECT GROUNDS OR BONDING DEVICES	100
C107 INSPECT OR REPORT EVIDENCES OF CORROSION	100
C96 INSPECT CABLE VAULTS, HANDHOLES, OR MANHOLES	100
C87 EVALUATE SCHEME DRAWINGS OR SPECIFICATIONS	100
C108 INSPECT SPLICING MATERIALS	100
E159 INTERPRET CABLE RECORDS OR CABLE SPLICING DIAGRAMS	100
C99 INSPECT HAND OR SPECIAL PURPOSE TOOLS	100
C75 COORDINATE FINAL QUALITY CONTROL VERIFICATION TESTS WITH RECEIVING INSTALLATIONS	100
C114 INSPECT WORK AREAS FOR HAZARDOUS WORKING CONDITIONS	86
C103 INSPECT INSTALLED CABLE PRESSURE SYSTEM EQUIPMENT OR COMPONENTS	86
C109 INSPECT SPLICING PITS	86
C112 INSPECT TEST EQUIPMENT	86
C104 INSPECT INTERIOR OR EXTERIOR GROUNDING OR SEALING DEVICES	86
E161 INTERPRET CIRS OR PLANT-IN-PLACE RECORDS	86
C105 INSPECT METEOROLOGICAL CABLES	86
C113 INSPECT VEHICLES OR SPECIAL PURPOSE EQUIPMENT	86
E165 MAINTAIN STANDARD PUBLICATIONS, RECORDS, OR CORRESPONDENCE FILES	86
C73 ANALYZE REPORTS OR RECORDS TO IMPROVE INSTALLATION OR MAINTENANCE PRACTICES	86
E180 PREPARE TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY FORMS (AFTO FORM 22)	86
C79 EVALUATE COMPLIANCE WITH WORK STANDARDS	71
C111 INSPECT TECHNICAL PUBLICATION FILES	71
C81 EVALUATE INSPECTION REPORTS OR PROCEDURES	71

REPRESENTATIVE TASKS PERFORMED BY HICS CABLE SHOP SUPERVISORS  
(GRP179, N=5)

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
C79 EVALUATE COMPLIANCE WITH WORK STANDARDS	100
C81 EVALUATE INSPECTION REPORTS OR PROCEDURES	100
B46 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	100
C113 INSPECT VEHICLES OR SPECIAL PURPOSE EQUIPMENT	100
A35 SCHEDULE WORK ASSIGNMENTS	100
A31 PLAN WORK ASSIGNMENTS	100
C74 ANALYZE WORKLOAD REQUIREMENTS	100
A15 DETERMINE WORK PRIORITIES	100
E165 MAINTAIN STANDARD PUBLICATIONS, RECORDS, OR CORRESPONDENCE FILES	100
E167 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	100
B47 DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	100
C112 INSPECT TEST EQUIPMENT	100
G244 TRAVEL TO OR FROM MISSILE CABLE WORK AREAS	100
D119 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	100
C84 EVALUATE PERFORMANCE OF MAINTENANCE TEAMS	100
A20 ESTABLISH PERFORMANCE STANDARDS	100
C91 EVALUATE WORK SCHEDULES	100
E170 PERFORM VEHICLE OPERATOR INSPECTIONS USING FORMS SUCH AS AFTO FORM 373 OR AFTO FORM 374	100
B67 SUPERVISE APPRENTICE CABLE SPLICING INSTALLATION AND MAINTENANCE SPECIALISTS (AFSC 36131)	100
C80 EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	100
B60 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	100
D125 COUNSEL TRAINEES ON TRAINING PROGRESS	100
B65 RESOLVE TECHNICAL MAINTENANCE PROBLEMS	100
D148 REVIEW JPGS	100
B69 SUPERVISE CABLE SPLICING INSTALLATION AND MAINTENANCE SUPERVISORS (AFSC 36171)	100

**REPRESENTATIVE TASKS PERFORMED BY SUPERVISORS - BASE CABLE SECTION  
(GRP157, N=9)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
A33 REVIEW LISTS OF MATERIALS, SCHEME DRAWINGS, OR SCHEME SPECIFICATIONS FOR ACCURACY	100
A31 PLAN WORK ASSIGNMENTS	100
B59 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES	100
B46 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	100
A35 SCHEDULE WORK ASSIGNMENTS	100
C79 EVALUATE COMPLIANCE WITH WORK STANDARDS	100
C74 ANALYZE WORKLOAD REQUIREMENTS	100
B65 RESOLVE TECHNICAL MAINTENANCE PROBLEMS	100
A28 PLAN OR SCHEDULE INSPECTIONS	100
A34 SCHEDULE LEAVES OR PASSES	100
B64 RESOLVE TECHNICAL INSTALLATION PROBLEMS	100
A14 DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	100
D141 ORIENT NEWLY-ASSIGNED PERSONNEL	100
A36 SELECT PERSONNEL FOR TEMPORARY DUTY (TDY)	100
A3 ASSIGN PERSONNEL TO DUTY POSITIONS	100
D127 DETERMINE OJT TRAINING REQUIREMENTS	100
B66 REVIEW EQUIPMENT AUTHORIZATION LISTS	100
A5 COMPUTE COSTS OF MANPOWER, MATERIALS, OR EQUIPMENT	100
B68 SUPERVISE CABLE SPLICING INSTALLATION AND MAINTENANCE SPECIALISTS (AFSC 36151)	89
E159 INTERPRET CABLE RECORDS OR CABLE SPLICING DIAGRAMS	89
C84 EVALUATE PERFORMANCE OF MAINTENANCE TEAMS	89
B50 DRAFT CORRESPONDENCE	89
C87 EVALUATE SCHEME DRAWINGS OR SPECIFICATIONS	89
C114 INSPECT WORK AREAS FOR HAZARDOUS WORKING CONDITIONS	89
A15 DETERMINE WORK PRIORITIES	89

**REPRESENTATIVE TASKS PERFORMED BY CABLE AFFAIRS MONITORS  
(GRP054, N=8)**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
E161 INTERPRET CIRS OR PLANT-IN-PLACE RECORDS	100
E168 MAKE ENTRIES ON PLANT-IN-PLACE RECORDS	88
E157 ANNOTATE AS-BUILT OR AS-INSTALLED DRAWINGS	88
E162 MAINTAIN CABLE RECORDS, DIAGRAMS, OR CARD FILES	88
A6 COORDINATE CABLE INSTALLATION OR MAINTENANCE WITH CONTRACTORS	88
E159 INTERPRET CABLE RECORDS OR CABLE SPLICING DIAGRAMS	75
C116 PERFORM AERIAL FLY-OVER INSPECTIONS OR SURVEYS	75
E170 PERFORM VEHICLE OPERATOR INSPECTIONS USING FORMS SUCH AS AFTO FORM 373 OR AFTO FORM 374	75
A24 OBTAIN RIGHT-OF-WAY, ROAD PERMITS, DIGGING PERMITS, OR OTHER CLEARANCES	75
E165 MAINTAIN STANDARD PUBLICATIONS, RECORDS, OR CORRESPONDENCE FILES	50
E169 PARTICIPATE IN STAFF MEETINGS	50
I305 LOCATE CABLE ROUTES USING PLANT-IN-PLACE RECORDS	50
F200 WASH OR WAX VEHICLES OR TRAILERS	50
A25 PLAN CABLE INSTALLATIONS, MODIFICATIONS, REMOVALS, OR REHABILITATION	50
E160 INTERPRET CABLE TRANSFER WORK SHEETS OR CUT SHEETS	50

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